ABSTRACT
OF AN
Introductory Lecture
Delivered by

P. W. LATHAM, M.D., F.R.C.P.,
DOWNING PROFESSOR OF MEDICINE, CAMBRIDGE; PHYSICIAN TO ADDENBROOKE'S HOSPITAL.

AFTER having briefly sketched out the history of, and the views held by, the various medical sects from the earliest periods to the commencement of the nineteenth century, Dr. Latham proceeded as follows:—

Such then, gentlemen, are some of the theories which have prevailed in medicine, and such is a short history of some of the workers who in former ages gave lustre to the profession. But whilst we acknowledge our indebtedness for their careful observation of facts, for the sagacity and diligence which they manifested in the discrimination of the phenomena of disease, for their attentive watching and accurate description of these phenomena, and for the discovery of many of what are still the most important remedies in treating disease, it must nevertheless be confessed that all former advances in the knowledge of disease, in the means of diagnosis, and in the acquaintance with morbid changes, are insignificant in comparison with what has taken place since the commencement of the present century. Nor is this to be wondered at. If we consider that modern chemistry has only just completed its centenary; that it is only one hundred years since the discovery by Priestley and Scheele of oxygen; that the discovery of hydrogen and the composition of water was only known in 1781; that Galvani made his discovery in 1790; that the improvements in the achromatic microscope which have rendered it of such service hardly date back forty years; that the application of physical means, as auscultation and percussion, to the investigation of disease was begun by Laennec within the memory of living men; and when we reflect on the bearing of these discoveries upon the diagnosis of disease, upon physiology, upon pathological anatomy and pathological chemistry, we may well be astonished, not that our predecessors knew so little of disease, but that, without any of these aids, they should have learned so much about its nature, the means to be employed in relieving it, and have accumulated so many facts, the bearing of which, by the application of our new knowledge, we are able now correctly to appreciate. We may offer a different interpretation of the facts, but the facts themselves remain unchanged.

With the aids above mentioned, accuracy in the diagnosis of disease during life and our knowledge of the pathological changes produced by disease have made remarkable progress; and this, together with our acquaintance with the natural course of many ailments, has improved in a very marked degree our knowledge of the action of remedies and our treatment of disease.

What a flood of light has been thrown upon diseases of the chest by means of auscultation. In Cullen's time they were among the most obscure of ailments. Pneumonia or pneumonic inflammation with him comprehended "the whole of the inflammations affecting either the viscera of the thorax or the membrane lining the interior surface of that cavity; for neither," he says, "do our diagnostics serve to ascertain exactly the seat of the disease, nor does the difference in the seat of the disease exhibit any considerable variation in the state of the symptoms nor lead to any difference in the method of cure." Whereas now disorders of the thoracic viscera may be classed among those which are best understood. We can, in fact, in a large proportion of cases, by means of the physical signs, tell what is going on in the chest almost as accurately as if the walls were transparent and we could actually watch the processes.

How great, too, is the practical aid which the thermometer now affords us, both with regard to diagnosis and to treatment. In disorders of the chest, as pneumonia and phthisis, the information is most valuable and reliable. In acute rheumatism it will tell us that death is imminent, that the death agony is being entered upon, that three or four hours is the limit of the patient's life unless the temperature can be lowered; and then by judicious treatment, the warning having been given, the sufferer may be rescued from what is actually a dying state.

But it is in fevers that the thermometer is especially valuable. "The physician who judges of fever cases without a knowledge of the facts of thermometry, and without taking note of the temperature, is like a blind man trying to find his way. With much practice and great intelligence the blind man may succeed; but he will more frequently fail, and always do only with great difficulty and unsatisfactorily what to him who sees requires no effort." In typhoid fever we can diagnose the disease during the first four or five days by means of this instrument. In obscure cases, during the first two weeks, the thermometer will help us to a positive diagnosis; and, lastly, it will tell us when convalescence has been reached. How often have I seen patients apparently convalescent from typhoid fever, with a clean tongue, quiet pulse, formed motions, and all the general symptoms favourable, crying out urgently for solid food, and yet the thermometer telling that the temperature is still a degree or so too high. While this is the case solid food must be withheld, for if given it will with very great probability induce a relapse, and after a relapse the disease very often runs a much more severe course.

The recognition of albuminuria by Bright must be classed as one of the greatest discoveries in practical medicine during the present century, and has furnished most material assistance in the diagnosis and treatment of many disorders the nature of which before was incomprehensible. In cardiac, in gastric, in pulmonary, and in cerebral affections the diagnosis would often be mere guesswork without a knowledge of the condition of the kidneys; and the treatment, in many affections, which, if the kidneys are sound, would prove beneficial, might, on the other hand, if adopted when the kidneys are diseased, kill.

Other great advances which have been recently made are in our acquaintance with various disorders of the nervous system, and in our knowledge of chronic degenerations, such as fibroid, fatty, and atheromatous changes; in the discovery by Virchow and Kirkes of embolism and thrombosis, and in the recognition of many disorders formerly unknown, such as pyæmia, &c.

But while our acquaintance with the nature and course and diagnosis of disorders has been so greatly extended, the art of therapeutics has not been left entirely in the background. You will occasionally hear a good deal said by some practitioners about enlightened scepticism with regard to the action of drugs. Many men pride themselves on this scepticism, and wish to be thought to exercise a philosophic caution; but the words "enlightened scepticism" are not infrequently substituted for "apathetic ignorance." "Give me," says the enthusiastic operator, "the knife, calomel, and opium, and I will dispense, without much regret, with the rest of the materia medica." Possibly it would be to the advantage of his patients if he did; for by using remedies of whose power he is ignorant, he simply interferes at random with that curative agent called by our forefathers *vis medicatrix naturæ*; and one cannot be surprised to find that *vis* (to which the term is sometimes abridged), uncontrolled, is, on the whole, more successful than *vis* directed by such a steersman. Again, another says, "How uncertain is the action of remedies!" I wish there was less truth in the statement. But is not the different action, in cases which appear at first sight somewhat similar, often due to complications which the prescriber had overlooked? Take, for instance, a person suffering from delirium tremens. It is considered advisable to give him a full dose of morphia. The patient falls into a slumber and wakes up with a mind comparatively clear, and makes a rapid recovery. Another person has apparently the same symptoms; the same dose is administered; and the patient falls into a slumber out of which he is never to be roused in this world. How is this? The uncertainty of the action of remedies? Not altogether. On post-mortem examination you may possibly find the kidneys contracted and granular—a condition which we now know renders the system highly susceptible to the influence of opium. I have been surprised to find, in both hospital and private practice, how frequently, in cases of

this kind, albumen was present in the urine, without any previous suspicion of disease having existed. Take this practical hint, then, in such cases—always examine the urine, and never administer opium if albumen and granular casts be present. It is a point which I invariably attend to, and the result is that I have every reason to approve of treating uncomplicated cases of this disorder by opium.

But what are the advances which have been made in therapeutics? In the first place, by our better acquaintance with the nature and course of many diseases we have learnt when to withhold our drugs, and by proper nutriment and adjustment of circumstances to promote the tendency to recovery. Take pneumonia, for example, which, if only affecting one lung in a previously healthy person, generally runs a favourable and very characteristic course. Take typhoid fever; and if the diarrhœa keep within bounds, and the pulse and morning and evening temperature keep within certain limits, we know that the condition of the patient cannot be further improved by any pharmacopœial preparations. In the second place, the art of therapeutics has advanced by our improved knowledge of the action of various drugs. Take digitalis, for instance: we have learned to regard it as a cardiac tonic, and to distinguish those cardiac affections in which it may be useful or the reverse.

But, lastly, how many new and most valuable remedies have been added to our pharmacopœia. Take iodide of potassium, with its effects in various nervous disorders, in syphilis, &c. Take the bromides of potassium and ammonium, not long introduced into use, but whose influence in controlling epileptic attacks, and curative effect in certain other disorders of the nervous system and of the sexual organs, are most marked. Take cod-liver oil, with its influence on rickets and certain forms of phthisis. Take galvanism and faradisation in the treatment of some forms of paralysis and neuralgia and certain other disorders. Take carbolic acid, and its successful use, in the hands of careful persons, in the antiseptic treatment of wounds. All these are triumphs of which this age may well be proud. But more: "Who," to use the words of Sir William Jenner, "that has suffered from a painful local affection can think of the alleviation to his sufferings which followed on the subcutaneous injection of an anodyne without gratitude? Who is there that has had to submit to the knife of the surgeon whose heart does not overflow with gratitude to those who introduced and perfected local and general anæsthesia? The electric telegraph—the second greatest marvel of our time—was a thing which, in a rough way, scientific men had long thought possible; but to be cut for stone and know nothing of the agony—to have a leg removed and smilingly to ask, when the operation is over, 'When are you going to begin?'—to have a nail torn away and look on and laugh while that most painful operation is proceeding, these are marvels of which none dreamed. No extravagance of fiction equals this reality."

But our knowledge, again, with regard to the prevention of disease (the physician's first and highest aim) has largely increased within the last half century. We have tracked many maladies to their source and cause, by the removal of which we can prevent the disease. And yet how feebly and inadequately is this knowledge put into practice. Look at the mortality of children. In London, 60 per cent. of the children born die under five years of age; and with a large proportion of these cases rickets, directly or indirectly, has much to do. Now deficient light, bad air, and overcrowding are factors in producing rickets; but the disorder would be comparatively rare if the child were fed in a proper manner. The plan to be adopted is very simple and easily told, and yet the ignorance on the subject is astounding, not only among the poor and ignorant, but among the wealthy and educated. Take typhoid fever. Whenever an epidemic of this disorder (circumscribed or extensive) has lately broken out, careful investigation always shows that it has spread by means of drinking-water contaminated with the specific typhoid poison—a poison discharged from the intestines of a person suffering from typhoid fever. The outbreak in Caius College fifteen months ago showed this in a very remarkable manner; and all the cases which came under my observation in the town, with one exception, could be traced, clearly and distinctly, to the patients drinking well-water contaminated with sewage containing typhoid excreta. To quote three eminent authorities: The grand fact is clear, that it is a "disease altogether and easily preventable"; yet "every year, in England, more than 100,000 human intestines..... continue, each for the space of a fortnight or thereabouts, to discharge upon the ground floods of liquid charged with matters on which the specific poison of a communicable disease has set its most specific mark"; whilst "by subjecting the discharges, on their issue from the body, to the action of powerful decomposing chemical agents the specific poison may be entirely destroyed. Typhoid fever ought therefore soon to disappear from every return of disease, whether in military or civil life." Take phthisis, again, and its production by dampness of soil. At Ely, by improved drainage, causing drying of the soil, the annual mortality from phthisis was lowered 47 per cent.

(To be concluded.)

Hunterian Lectures
ON
SYPHILIS,
AND ON
SOME LOCAL DISEASES AFFECTING PRINCIPALLY THE ORGANS OF GENERATION.

Delivered at the Royal College of Surgeons of England,

BY HENRY LEE, F.R.C.S.,
PROFESSOR OF SURGERY AND PATHOLOGY TO THE COLLEGE.

LECTURE I.—PART II.

IN the experiments which Hunter made he was led to the conclusion that the products of constitutional syphilis were "not capable of acting in some respects on the same body or same state of constitution as that matter does which is produced from a (primary) chancre." He says that the secretion from a chancre generally, when absorbed, produces a bubo, but that we never find a bubo arising from a secondary syphilitic sore. When there is a venereal ulcer in the throat, no buboes appear in the glands of the neck. Venereal sores on the arms, or even suppurating nodes on the ulna, do not, as a rule, produce swelling of the axillary glands, although these will very certainly be affected if syphilitic matter from a primary chancre be inoculated on the skin of the arm. Again, when syphilitic blotches or nodes form on the legs and thighs, the specific affection of the glands in the groin, which accompanies primary infection, does not occur.

These considerations so far biased Hunter's mind that some of his expressions might lead to the conclusion that the secretions from the secondary syphilitic affections were not inoculable. He mentions, however, that it was asserted in his day that ulcers in the mouths of children, derived from constitutional and hereditary disease, produced the same disease upon the nipples of women who suckled them. That is, the children were contaminated either by their mothers or fathers; the child received the disease by hereditary descent; and the nurse was infected by the child. "If," Hunter observes, "it were possible to contaminate once in this way, it would be possible to contaminate for ever. How far the observations upon which the beforementioned opinion is founded have been made with sufficient accuracy I know not."

Whether or not Hunter was accurate in his conclusion that the syphilitic poison did not act on *the same body* when reinoculated as when received for the first time, we may now contemplate with satisfaction. He drew perfectly logical and accurate conclusions from his experiments, and I am bold to say that all subsequent experience has borne out his cautious, and, as far as they went, correct conclusions. We shall have abundant opportunities of seeing that the venereal poison, when inoculated upon the same body as that which produced it, does not produce the same effects as when inoculated upon another non-syphilitic subject. It was somewhat hastily concluded that Hunter's idea was that the products of constitutional syphilis would not be inocu-

lated. The cautious expressions which I have quoted show that he held it an open question, but maintained that, from his experiments performed upon the patients themselves, it appeared not to be so. On the other hand, the cases which he has mentioned, reviewed in the light of more recent observations, clearly show, not only that the products of constitutional disease may be communicated, but that the blood itself may be the means of imparting the disease.

Having considered the inoculation of syphilitic blood by means of the lancet, through a blistered surface, by hypodermic injection, and by the transplantation of teeth, I will now give an instance of the direct communication of syphilis by means of blood, as observed in practice.

CASE 8.—A nervous gentleman, who had never had syphilis, had contact but not intercourse with a lady who had not quite recovered from her monthly period. There followed violent irritation of the glans penis; a lymphatic vessel on one side of the penis enlarged to the size of a common writing quill; one of the corresponding glands in the groin became as large as a chesnut and painful. Some days after the frænum on one side became indurated, but there was no induration of the glans penis. A copper-coloured syphilitic eruption followed, and this, in its turn, was succeeded by mucous tubercles on the lips and tongue.

It was subsequently ascertained that the lady had had an old syphilitic affection; there had also been a slight herpetic eruption on one labium and on a small part of the skin of the face. The disease in this case was communicated by simple contact, previous to which there was no lesion on the skin or mucous membrane of the gentleman. The lady some days afterwards was carefully examined; there were two or three very small dark-red pimples on the chest; the vagina was perfectly healthy, but there was a copious viscid tenacious discharge from the uterus.

That it was the accidental admixture of blood in this case which determined the infection, even if the blood itself did not convey it, is confirmed by the fact that this lady thought herself perfectly well, and had not the slightest suspicion of having had any disease for some years previously. That the blood, if not the direct means of conveying the syphilitic disease, may be the means of imparting a wonderful morbid energy to some other fluids in the human body, may be further illustrated by the now large number of cases in which syphilis has been communicated, when diseased blood, or some of its constituents, has accidentally been inoculated together with the vaccine lymph. I will content myself now with referring to one series only of such cases.

In November, 1856, Dr. Marone vaccinated a number of children at Lupara, in Molise. The vaccine lymph was sent in glass tubes, and it was observed that it was mixed with a little blood, which affected its transparency. Dr. Marone says that he does not think it necessary to detail the symptoms of each individual case, as all the children mentioned in the following account displayed nearly the same symptoms, and that therefore such an account would involve needless repetition. The disease with which these children were affected showed itself subsequently among the nurses and mothers, and even amongst the servants and others who were brought in contact with them.

The names of the children are given, and amount to twenty-three. They came of parents who never had at any time previously shown any symptoms of syphilis; moreover, their general health was good. The children likewise had never shown any symptom of syphilis, either congenital or acquired, previous to the vaccinations in question. The number of vaccinated children was not limited to these; there were some others, of whose cases notes were not preserved.

In some of the children vaccinated the vesicles died slowly away; but afterwards ulcers appeared on the same spots, surrounded by hard edges, and accompanied by multiple enlargement and induration of the axillary glands. These ulcerations lasted from a month to a month and a half, without any suppuration of the axillary glands. In other cases the vaccine pustules became covered with crusts, which remained an unusual length of time. These never became firmly cicatrised, and sooner or later reopened, assumed an ulcerated appearance, and were accompanied by the usual axillary complications.

Finally, in some other cases, the first vaccinations not having succeeded, they were repeated, and the pustules which resulted from these subsequent inoculations ran a lengthened and irregular course. In all the children above named, sooner or later, but towards the middle of January, some form of constitutional syphilis developed itself. The symptoms consisted chiefly of eruptions of roseola, crops of papulæ, impetiginoid, and in a few instances pemphigoid, eruptions. At a later period mucous tubercles appeared on the angles of the lips, on the mucous membrane of the mouth, around the anus, and on the vulva; the post-cervical and inguinal glands were affected; and the children were emaciated generally in proportion to the extent and severity of the syphilitic symptoms.

The breasts of the mothers who suckled these children became affected with ulcers, varying in appearance, but always indurated. Some of these ulcers had the appearance of raised and ulcerated mucous tubercles; others were superficial and but slightly indurated; others, again, assumed the appearance of fissures: these were mostly on the nipple, or on the areola immediately surrounding it.

Some of these mothers presented a muco-purulent discharge from the vagina, and a similar discharge had previously been observed from some of the infected children. Few opportunities were afforded of witnessing the source of the discharge in the women, but in two instances mucous tubercles were seen on the neck of the uterus.

Subsequently, and after the lapse of from five to eight weeks, many of the children had, in addition to the symptoms already mentioned, fresh eruptions of roseola, impetigo, psoriasis of the palms of the hands and soles of the feet, and ulcerations between the toes. Some of the women had at this time mucous tubercles about the mouth and genital organs. These women were also affected with chronic enlargement of the post-cervical and axillary glands, which became the size of hazel-nuts, but never passed into suppuration.

After the appearance of the above symptoms the husbands of some of these unfortunate women became affected with the same disease. They first presented mucous tubercles with a certain amount of induration, which subsequently became ulcerated. These were observed principally upon the lips and angles of the mouth. In some cases ulcerated fissures with hardened base appeared upon the tongue. Between the fourth and eighth months from the first appearance of the disease the husbands had eruptions of the same nature as those which had previously affected their wives. At this period several of them had also characteristic mucous tubercles around the anus, on the scrotum, and on the prepuce.

The disease was observed to spread to other members of the different families, so that Dr. Marone remarks that he had children of both sexes who had not attained the age of puberty with hardened ulcers of the lips and tongue. In cases where these poor people were crowded together in confined and neglected dwellings, whole families became affected with the disease. The same train of symptoms which have been already described as affecting the nurses and husbands, showed themselves in the other members of the respective families.

The treatment adopted was mercurial frictions to the skin, and mercurial baths of corrosive sublimate. Corrosive sublimate was also in many cases given internally. Under this treatment the disease was greatly modified, and in some instances appeared to have been completely cured. But in the majority of cases the syphilitic symptoms, which at first yielded to the remedies employed, subsequently recurred, and in some instances the disease lasted in this way for upwards of two years and a half. Some of the children died, and apprehensions were entertained that a similar result might follow, in not a few cases, in the adults.

Many of the women who had been infected by their children, when they subsequently became pregnant, miscarried; others were prematurely confined with children who subsequently became syphilitic; and in other cases again the children, when born, were excoriated, and already in a state of incipient putrefaction.

Some of the unfortunate patients who were infected by their own children, communicated the disease to the children of other people, through the medium of the breast. The names of eleven nurses who in this way, without the slightest suspicion, communicated the disease to the children whom they nursed, are recorded.

The symptoms which appeared in these children were—mucous tubercles and ulcers of an indurated character, first on the lips, and then around the anus. These were

followed by well-marked syphilitic roseola and syphilitic papular eruptions.

The two following observations are recorded particularly by Dr. Marone.

A child (L. S——), who had been successfully vaccinated in another part of the country, required a nurse. A woman was selected who at the time appeared healthy, but who in reality had been infected by her own child in the manner above described. Her child had received the disease by vaccino-syphilitic inoculation, and subsequently died. After the nurse had been with L. S—— two months, there appeared on this child's mouth mucous tubercles and indurated ulcers, followed by an eruption of roseola over the whole body. The nurse Dr. Marone ascertained, by personal inspection, to be syphilitic.

Giuseppina Simeone was infected from her own child, as in the last recorded case; and feeling on one occasion that her breasts were inconveniently distended, she had them drawn by her sister, of the age of ten years. This girl (Teresi Valentini) became infected with syphilis; she had mucous tubercles and indurated ulcers on the lips and tongue, and these were followed by the ordinary syphilitic eruptions. The disease lasted in this instance for upwards of two years. In some of the patients seen by Dr. Marone, the syphilitic symptoms continued in children, nurses, and mothers until April, 1859.

Previous to the outbreak of this terrible malady, Dr. Marone states that he had had no experience of syphilis among these villagers. "It is my duty, in the cause of truth," he further adds, "to state fully, that these inhabitants of Lupara were in nowise blind to the connexion between cause and effect on the occasion of this painful occurrence; so that, in fact, I was pointed out as a guilty party in the catastrophe which had occurred; and this is the reason why I was silent at the time, not only on my own account, but also for fear of discrediting one of the most important discoveries of our science. Vaccination was declared to be the foundation of all this misery. Now that I have seen that other surgeons have met with a like series of facts, whatever may happen to myself, I have disregarded personal considerations, and am no longer able to refrain from publishing the above-mentioned details, considering it to be a duty that I owe to science."

Dr. Marone draws the following brief conclusions from his most interesting and affecting narrative:—That the syphilitic disease was really transmitted in the above-recorded cases by means of vaccination. That the children vaccinated suffered first, and became the means of transmitting the disease to others. That the lymph used for the purpose of vaccination was impure, being mixed with blood, and that the result showed how necessary it is to abstain from using lymph of that description.

I have not myself seen any case of vaccino-syphilis during the progress of the inoculation. The following case, however, fell under my care:—

J. W. T—— was vaccinated at the age of seven months on the 16th of June, 1859, having been perfectly healthy up to that period. His mother appeared a perfectly healthy woman, and stated that her husband had always enjoyed good health. This little patient, when brought to the hospital in the beginning of the year 1861 (having previously been subject to a variety of treatment), presented numerous dark copper-coloured patches over his body, and especially on his lower extremities. These I considered to be syphilitic. On examining the child's arm, the cicatrix left by the vaccination was very apparent, and was slightly harder than the surrounding skin; but that which particularly attracted attention was the existence of chronic enlargement of a gland in the axilla. This was hard, accurately defined, and not tender to the touch. The child was treated by mercury, and recovered. The mother continued to bring him to the hospital long after he had lost his eruption. She also brought the medical certificate of successful vaccination under the compulsory Vaccination Act.

It may here be noted that, when blood-inoculation is referred to, it does not necessarily imply that the inoculated matter contains the red globules of the blood. It is probably the white corpuscles, or some derivative from them, which contain the life-giving power both in healthy and diseased actions. A fluid derived from the blood may therefore be inoculable, so as to produce disease, although not in any way tinged with red particles.

In concluding the consideration of cases of blood-inoculation, where the blood has appeared to give an energy and power to other secretions which they would not otherwise have, I must not omit the comparatively large number of cases in which both medical men and midwives have become infected in attending women during their confinement. I must have seen at least a dozen cases of the kind, although it would be difficult for me to recall even two or three where chancres appeared on the fingers of surgeons or attendants of ordinary patients. This surely does not arise from the fact that contact is more frequent in the former class, nor could it be supposed to depend upon the local manifestations of the disease being more virulent or more general in the second. All experience would give a direct negative to both these suppositions.

I may also note that syphilis, contracted on the hands of surgeons and midwives in attending labours, appears to be followed by exceptionally severe results.

CASE 9.—A medical man whom I knew attended a patient with whose history he was previously unacquainted. Some time afterwards he showed me a sore on his finger, which I pronounced to be syphilitic. He treated himself in some favourite way of his own; secondary symptoms appeared, the spinal cord became affected, and he ultimately died paraplegic.

CASE 10.—In another case which came under my observation a medical man, in performing the operation of craniotomy, unfortunately had his finger between the bones of the fœtal head when a pain came on, and his finger was grazed by the edges of the bones. After an interval, a chancre formed on his finger, which was followed by a protracted course of secondary symptoms. In this case the blood alone, or some constituent of the blood, must have been the means of communicating the disease.

Such cases are of painful interest in a physiological and practical point of view, but they become sometimes much more so in a medico-legal aspect. In a case lately tried in the Court of Queen's Bench, where a surgeon was supposed to have communicated syphilis to a patient in attending her during her confinement, the observations of the Lord Chief Justice contain a brief summary with regard to the legal points. In addressing the jury, he says:—"I am very glad that you are relieved from deciding one of the most doubtful cases which it has ever been my lot to try—I mean the question of whether any legal liability attaches to the defendant by reason of the unfortunate accident which has happened, through his means, to the female plaintiff. I say which has happened, because I cannot bring myself to doubt that it was through his act, either in the delivery of Mrs. —— of the child which was born, or in the after-process which forms the concluding part of the delivery of a woman by a medical man, that somehow or another his diseased finger was brought into contact with her, and caused her illness. Of that I think you would in the end have had very little doubt. As to how far his acting in that delivery, under the circumstances in which he was placed, amounted to a legal liability in respect of negligence, is another matter. Moral imputation, I think, there can be none upon him. No one supposes for a moment he dreamt at that time that his finger was diseased. But whether, as a medical man, looking to the antecedent circumstances, suspicion ought to have been created in his mind, which, if it at once arose, would have been a sufficient reason why he should not engage in such an operation as that, is another and a very difficult question indeed."

If, in such a case, it were ever established that a patient was entitled to recover damages from a medical man who had unconsciously been the means of communicating the disease, the converse ought in all justice to hold good, and a medical man ought to be able to recover compensation when infected by a patient. For, under such circumstances, a patient is quite as likely to suspect the existence of syphilis as a surgeon.

The liability of syphilis to be communicated by digital contact has been long observed. In the first treatise published in the English language upon the "Lues Venerea," William Clowes, one of Her Majesty's chirurgeons, in the year 1596, mentions that he had known divers persons infected who were free from any disease of the organs of generation. "So that," he says, "their opinion is not to be observed which affirm that this disease is engendered only by the company of unclean persons, for I have known,

not many years past, three good and honest midwives infected with this disease, called lues venerea, by bringing a-bed three infected women of three infected children, which infection was chiefly fixed upon the midwives' fingers and hands."

The same author also notices the hereditary transmission of syphilis, or its liability to be transmitted, by the breast. It is not always clear to which he refers. He says: "What should I speak of young sucking children, whereof divers have been grievously vexed with this disease, and some of them a month, two or three months old, and some of them a year old, some four or five years old, and some of them six or seven years old, amongst which I thought it good here to note a certain wench, the daughter of one Saxe, of twelve years of age, the which I cured in 1567, who was infected with this sickness in many parts of her body, having thereon painful nodes or hand swellings and ulcers, with corruption of the bones, and yet no sign in the most suspected parts."

He also quotes the following case from Ambrose Paré:—

CASE 11.—"An honest citizen granted his most chaste wife that she should nurse the child that she was lately delivered of, if she would keep a nurse to be partaker of the travel and pains. The nurse that she took by chance was infected with lues venerea, therefore she did presently infect the foster-child, and he the mother, and she the husband and the two children which he had daily at his table and bed, not knowing of that poison which he did nourish in his own body and entrails. But when the mother considered and perceived that her child did not profit or prosper by the nourishment, but continually cried and waxed wayward, desired me to tell her the cause of that disease; neither was it any hard matter to do, for his body was full of small pocks, whelkes, and numerous pustules; and the breasts of the nurse and mother being looked on, were eroded with virulent ulcers; and the body of the father and his two sons, the one about three years, and the other four years of age, were infected with the like pustules and swellings that the child had; therefore I showed them that they were all infected with the lues venerea, whose beginning and, as it were, provocations, were spread abroad by the nurse that was hired and her maligne infection. I cured them all, and brought them to health, except the sucking child, which died in the cure; and the nurse being called before the magistrates, was punished in prison and whipped closely, and had been publicly whipped through the streets of the city if it had not been for the honour of that unfortunate family."

Of the mode of communication of such infection I shall have more to say in a future lecture.

ON THE

PHYSICAL CAUSE OF THE PRESYSTOLIC MURMUR.

BY ALEXANDER HARVEY, M.D.,

PROFESSOR OF MATERIA MEDICA IN THE UNIVERSITY OF ABERDEEN, CONSULTING PHYSICIAN TO THE ABERDEEN ROYAL INFIRMARY, ETC.

EVER since I first thought of it—now several years ago—I have felt insuperable difficulties in accepting the explanation given by Dr. Gairdner of the physical or physiological cause of the presystolic murmur. At intervals I have thought over these difficulties, and found them as insuperable as at the first. Sir Benjamin Brodie remarks, in his "Psychological Inquiries," that "it has often happened to him to have been occupied by a particular subject of inquiry, to have accumulated a store of facts connected with it, but to have been able to proceed no further..... Then," he adds, "after an interval of time, without any addition to my stock of knowledge, I have found the obscurity and confusion, in which the subject was originally enveloped, to have cleared away: the facts have seemed all to have settled themselves in their right places, and their mutual relations to have become apparent, although I have not been sensible of having made any distinct effort for that purpose."

This I have myself repeatedly experienced, as probably most persons have. But I have not done so as regards this particular subject—the cause of the presystolic murmur. On the contrary, my difficulties have remained as strong as ever; and now that I cannot be charged, or charge myself, with rushing hastily into print, I venture frankly to submit those difficulties to the consideration of my friend Dr. Gairdner, and that of others—physiologists and clinical observers—that may take an interest in that murmur. For my own part, I frankly confess those difficulties have tended to lead me to discredit the murmur in question—a murmur I have never been able to hear, even in cases in which I might have expected to do so, and in which it was affirmed by others to be audible. Anyhow, if a real murmur, I am at present well satisfied that some other explanation of it must be given than that given by Dr. Gairdner.

Itself the sign, or alleged sign, of a contracted auriculo-ventricular orifice, to what is its production due?

Occurring simultaneously with the systole of the auricle (or at the moment of the occurrence of this—that is, of the contractions of its muscular fibres), Dr. Gairdner holds and teaches that, *remotely* dependent, as its permanent cause, on the contracted state of the orifice, impeding the transit of blood through it, it is *immediately* due to the action of the auricle. And with reference to this action and its proper result, he speaks of the "forcible emptying" of the blood into the ventricle.* If, then, I do not misapprehend his meaning, the murmur is directly produced by the forcible contractions of the muscular fibres of the auricle, these contractions, which in the natural or healthy state give forth no sound, being thereby rendered audible, the narrowing of the orifice remotely co-operating.

Possibly. But—

1. As to this word "forcible." It is well known that in the normal state the action of the auricle is anything but forcible. It is said by physiologists to be "sudden and quick," but to be also "always a comparatively slight one," hardly over before that of the ventricle begins. Altogether it is an insignificant affair—a mere mark or note of the point of departure in the action of the ventricle, as when the clock strikes, say one, and the train moves off.

2. "Emptying" of the auricle. What is meant by this? The ventricle, acting forcibly indeed, does in fact empty itself each time it contracts—empties itself completely, peradventure, of every drop of its contained blood. But the auricle—does it thus empty itself, or does it do so in any sense that is real? No. It is never in any sense, or at any time, empty of blood. It is simply at one time a little less full, at another time a little more full. But it is always full.

3. Yet at the time this presystolic murmur is heard the auricle is said to be *emptied* of its blood, or to empty itself. How much, then, passes out of it into the ventricle? *Très peu de chose:* it can only be a very few drops, or, at any rate, a very insignificant quantity.

4. For the ventricle is already full—virtually full, if not actually so. Its filling, or rather refilling, from the auricle begins the moment the ventricular diastole begins; it goes on *pari passu* with this diastole, and the process of filling is complete, and the ventricle full, on the ending of the diastole. Even during the brief period of repose that precedes the action of the auricle the filling is still going on, by the continued movement of the mass of blood *à tergo*, to the distension of the ventricle. The whole heart is just then at rest; not so the onward flow of blood. And, indeed, it is not by any "action" of the auricle that the ventricle is refilled. The auricle is not then in action; it is quiescent. But the blood is then in motion; it is *in transitu* from the great veins, through the sleeping auricle (a mere pouch of these veins) into the gaping ventricle. Ever in motion elsewhere, it is ever in motion in the auricle, passing through it, except during the brief interval when the flood-gates between the auricle and ventricle are shut.

5. During the contraction (systole) of the ventricle, at which time the auriculo-ventricular valves are shut, the whole mass of blood, continually pressing onwards from behind, and moving equably as in the veins, is for the time being arrested in its flow, and is pent up. During this brief interval, the auricle is—just then—*somewhat distended* with blood. Always full, as are the veins, it is now somewhat fuller. *Voilà tout.* The ventricular contraction over, the blood

* Clinical Medicine, pp. 575, 586.

rushes forward through the auricle into the ventricle, throwing aside by its own weight or force the now relaxed valves. On it flows, yet passively as regards the auricle itself, and quite independently of any *action* it may or can then exert. Full, even to a slight degree of distension, when the diastole of the ventricle begins, it continues full all the time the diastole is in progress.

6. Does the auricle, then, when it does act, not send any blood into the ventricle? Does it not at this stage "empty" itself into the ventricle? For just prior to the ventricular contraction it is itself truly in action; its muscular appendages may be seen in action, whether "forcibly" or not. Does the auricle not, then, propel some blood into the ventricle? No, or nothing save a drop or two, or a very few drops. For, Q.E.D., the ventricle is already full.

7. What, then, does Dr. Gairdner precisely mean by the word "emptying" in respect of the auricle? It is intelligible as regards the ventricle. As regards the auricle it is to me unintelligible. Moreover, what does he precisely mean by the word "forcible" in respect of the action of the auricle? I learn from a dictionary at my elbow that "forcible" means "impetuous—powerful—done by force or violence." I also learn that to "empty" is "to deprive of contents—to exhaust—to evacuate—to become empty"; and, further, that to be or become "empty" is to be "void, having nothing in it." Has the auricle, then, nothing in it when it evacuates its contents into the ventricle? How often do words cheat us! "Credunt homines rationem suam verbis imperare; sed fit etiam ut verba vim suam super intellectum retorqueant."

(To be concluded.)

VARICOCELE, AND ITS CURATIVE OPERATION BY SUBCUTANEOUS WIRE LOOP.

BY RICHARD BARWELL, F.R.C.S.,
SURGEON TO CHARING-CROSS HOSPITAL.

THE mode of operating on nævus by subcutaneous wire loop, which I advocated in a former paper (THE LANCET, May 8th), is, with certain modifications, also applicable to the curative operation for varicocele, and is, I believe, the safest means of destroying the varicose veins at this part. Before, however, describing this method, it would be well to say a few words concerning the malady, and the motives which should cause us to operate or to abstain.

The veins of the lower part of the cord may become varicose from a number of causes, and yet the disease is rarely seen on the right side. When we consider that the malady may follow a blow, of which causation I have seen two examples, and that it may very commonly be traced to evil habits in youth, it would seem strange that such occurrences, which certainly ought to affect both sides, only produce varicocele on the left, rarely on both, hardly ever on the right alone; I say this would seem strange did we not take into account the predisposing causes, of which there are two: one, the termination of the spermatic vein, usually held to be all-sufficient; the other, and in my belief the more important, being the position of the lower part of the colon across the vein, which intestine, being in careless youth often overloaded, affords a marked obstacle to the return of venous blood.

Whatever the immediate cause may be, we find within the scrotum of a person thus affected the enlarged veins, aptly compared to a bunch of earth-worms, extending from the testicle upwards, the scrotum on that side lax and long, the testicle smaller and softer than the other, and often the seat of sharp, lancinating, more or less frequently recurrent pains, as well as of continuous aching, sometimes dull, sometimes severe.

Now, these two points—the flabbiness and smallness of the testicle, and the frequency or severity of the pain—should cause us to recommend or withhold operation. There is no doubt that a slight or moderate degree of varicocele may be kept in abeyance, may even be improved, by the use of a suspensory bandage or of a truss, and under such circumstances the malady will be painless. The testicle will hardly diminish in size. Nevertheless I believe that cure of this complaint by such means is excessively rare, nor do I think that the testicle from which the varicocele springs is of much use. But, as long as the organ retains a certain amount of hardness and of size, I do not feel justified in recommending an operation, and if no very palpable difference in the two organs be present, I should even strongly dissuade a patient from such procedure, unless he were suffering much pain. On the other hand, if the testicle of the affected side be markedly small and soft, particularly if the diminution have been rapid and be still going on, I should recommend obliteration of the veins, even though the accompanying pain were trivial; *a fortiori*, I would strongly recommend it if the pain be pretty severe. Even considerable pain alone (neuralgia being eliminated) is sufficient justification for operation by a method which, in my experience, is free from danger.

I cannot say that freedom from danger is the quality of every operation for varicocele. The plan of passing two needles beneath the veins, the one a short distance above the other, casting round each a figure-of-8 ligature, and dividing the vessels between them, has not infrequently been followed by pyæmia and death. Ricord's subcutaneous ligature is in many ways imperfect; pyæmia has resulted from it, and return of the disease also occurs. Other methods might also be named, such as Tufnell's substitution of wire for the thread which Ricord uses, and this is doubtless the best that has hitherto been described. Among the objections to it is complication.

The method which I adopted several years ago, and which I have very frequently used, is as follows:—First, it is most important that the vas deferens and spermatic artery be separated from the veins. This is best done by the surgeon standing on the patient's left (supposing the disease to be on that side), and taking that half of the scrotum, about an inch above the testicle, between the left finger and thumb, and feeling for the duct by rubbing the two surfaces of the bag gently together while its walls glide from his grip. When he has thus brought the duct and artery from among the venous plexus and holds them between his thumb and finger-tip, he must let them slip away to the back, so that he will enclose the veins within the circle of his finger and thumb and exclude from it the artery and the vas deferens. The digit tips and slightly compressed scrotum will thus separate the one set of vessels from the other. If, in seeking for the duct, the surgeon have allowed a few veins to slip away with it, he can begin again, with the advantage of having no longer the whole mass, but only a few vessels, to deal with. If he be not sure of having successfully isolated this important part, he must examine the condition of things with his right hand while keeping the left in the same position. Supposing this separation accomplished, the bit of scrotum between the finger tips is to be squeezed rather tight, and a needle, armed with iron or silver wire, not too fine, thrust straight through above them. Now the part may be released from grasp, and the needle passed in again at the puncture of exit, in front of the veins, and out at the first place of entrance. Thus at one opening protrude the two ends of the wire, and at the other a loop; by drawing on the ends the loop is pulled into the scrotal cavity, and closely surrounds the varicocele. Each end is passed through a hole in the little instrument I depicted in my former paper, and drawn tight enough to make the veins below swell, bulge, and partly consolidate. Every other day, or every day if time be an object, the wire may be tightened until it has cut through all the consolidated veins, and has come away. No suppuration nor apparent inflammation accompanies the process. The patient need not be confined to his bed after the first forty-eight hours.

One caution must be given. In passing the needle the second time—i. e., in front of the veins,—its course must be entirely in the cavity of the scrotum. If, from over-anxiety to include every vein, or from other cause, some of the lining fascia be strangulated in the loop, the case will be considerably retarded, and some amount of suppuration, accompanied by swelling in the walls of the sac, is likely to ensue. The operation, well performed, is very slightly painful. I have several times completed it without any

anæsthetic. Neither is it followed by pain; indeed, where aching of the testicle has previously been pretty severe, relief is the immediate result.

Rather than give the details of any one case, I prefer to offer here an analysis of my results. I have operated on thirty-two cases. Not one has been followed by shiverings, erysipelas, or other dangerous symptom. Three had some suppuration: the pus found its way out of the first puncture in two of these; in the third, a small abscess formed in the walls of the scrotum, an opening a third of an inch long emptied it, and it rapidly healed. In every case the testicle has begun to resume its size and hardness soon after operation. Those that returned to observation after a year or more were found to have quite recovered normal condition, except one. Two cases I saw after five and after seven years. The former had, through bad habits, a double varicocele; the testicles, previous to operation, were very small and soft; he was pretty nearly emasculate; now the organs are firm, healthy, and very good. The other, seen after seven years, had become the father of two children, stated to be strong and healthy. The one case referred to above, which after two years had not recovered normal condition, was one of left varicocele; the testicle was at the time of operation quite flabby; it was at the end of two years certainly better, but still very soft, and the patient believed it to have regained function; the man was a very feeble person, of phthisical history. Although I have asked all my patients to call upon me in case there were any return of the disease, I have never seen one of them with such complaint.

George-street, Hanover-square.

OBSERVATIONS ON MINERS' NYSTAGMUS.

A NEW DISEASE.

BY CHARLES BELL TAYLOR, M.D., F.R.C.S.E.,
SURGEON TO THE NOTTINGHAM AND MIDLAND EYE INFIRMARY.

DURING the past twelve years the neighbouring colliery district has furnished me with several examples of a peculiar malady which I have not found described in any of our text-books, and which I presume to be, therefore, a comparatively new or hitherto unstudied affection. I have called it "miners' nystagmus" from the peculiar oscillating motions of the eyeball which are characteristic of the disease, and from the fact that I have only observed it occurring in adults, and independent of other ocular defects, among the men employed in the coalpits of this and the neighbouring counties.

It was formerly supposed that nystagmus was incurable, always developed itself in infancy (although it might not in slight cases attract attention until the patient began to read), and was caused either by imperfect nervous perception or structural changes in the transparent media of the eyeball. In miners' nystagmus, however, the disease is usually curable, is developed in adults and aged persons previously healthy, is not accompanied by disease of the nerve or structural change of the eyeball, and is, as a rule, only to be noticed when the patient attempts fixation, especially in a stooping position. The oscillating motions are caused by alternating contractions of the recti or oblique muscles, and, in all the cases I have observed, have been either horizontal or rotatory.

The affection appears to be analogous to writers' cramp, pianists' and telegraphists' cramp, or the similar affection of the gastrocnemii occasionally observed in ballet-dancers. It may be developed in any or all of the muscles supplied by the third nerve, and is clearly caused by the overtaxing of these organs. The patient makes a great and sustained effort to see in an imperfect light; the muscles engaged in the accommodative strain are overburdened, in course of time give way, and at last, whenever called upon, just as in the analogous cases cited above, become, as it were, agitated and fluttered, escape from the control of the will, and perform irregular motions. It is clear from these facts that in all cases in which a considerable degree of exertion of the ocular muscles is required for distinct vision nystagmus may, under certain concomitant favouring circumstances, be developed. Hitherto the cause of nystagmus has been referred to, and might usually be readily detected in, the eyeball itself, but these cases demonstrate that causes external to the organ, and independent of any structural or apparent functional changes, may occasion all the phenomena of that disease, or, more properly speaking, symptom of disease. Nystagmus generally persists so long as its cause remains, and, if developed in childhood, may continue even after its removal; but in "miners' nystagmus" the aphorism *sublata causa tollit effectus* applies, and, as a rule, change of occupation and working in a good light are all that is necessary to effect a cure. In my first case, sent by my friend Dr. Forbes, of Eastwood, some years ago, I did not recognise the cause of the affection, and tried various remedies—such as the continuous galvanic current, blue spectacles, atropine, tenotomy of the affected muscles, and tonic and alterative remedies—with but little benefit. Since then similar cases have led me to a perception of the true cause of the disease, and the proper method of cure, which, as I have just remarked, consists essentially in a change of occupation, supplemented by such auxiliary treatment as may, in each case, appear to be specially indicated. It is worthy of note that the men are very apt to attribute their imperfect sight to one or other of the accidents which are so deplorably frequent among workmen underground. This is natural, of course, and acquires importance from a medico-legal point of view; but I have hitherto been unable to satisfy myself that in any case the accident had caused the affection, though readily inclined to grant that the nervous commotion and depressing influence of such injuries may aggravate an already existing disease, specially one so apt to be intensified by any nervous excitement.

In the three cases at present under treatment, and reported below, as samples of nine or ten others which I have had under my care, this disposition is evident in two, though there is little doubt that sight had been failing some time before the accidents to which the men ascribed their imperfect vision.

CASE 1.—James B——, aged fifty-six, of Staveley, came under my care on Feb. 3rd, 1875, complaining of dimness of vision and consequent inability to work. On examination with the ophthalmoscope, and directing the patient to look "inwards," the eyeballs immediately manifested the peculiar oscillating motions characteristic of "miners' nystagmus." The motions were aggravated by stooping or by an imperfect light. He stated that he had worked in a pit since he was seven years of age, and had not noticed anything wrong with his sight until four months ago, when he was crushed with some falling bind. He admitted, however, on further examination, that vision had been dimmish for some time, probably a year before the accident. He had been blistered by his surgeon, and had a seton in his back, "to clear the sight," without benefit. The optic discs were healthy, and there was no disease of the eyeball to account for the involuntary motions. He was ordered small doses of iodide of potassium as a *placebo*, and directed to abandon his occupation underground. Under this treatment his sight gradually improved, and on the date of his last visit (May 15th) was nearly normal, although by fixing his attention on any small object, especially while stooping, it was still possible to set the eyeballs oscillating to a slight degree.

CASE 2.—Philip A——, of Seamer, near Staveley, aged thirty-seven, came under my care in January, 1875, complaining of dimness of vision, which, he says, was caused by a crush which he received in the pit on Nov. 25th, 1874. Has worked in a pit since ten years of age, and sight has always been good until lately. Is positive that the accident has caused his imperfect sight. Nothing peculiar is to be observed on glancing furtively at the patient, awaiting his turn for examination, and his eyeballs are at rest; but on questioning and looking at him, the effort to return your gaze is quite sufficient to set the eyeballs rolling rapidly from side to side. No disease or structural change was manifest on ophthalmoscopic examination; the patient had recovered from his accident, and was otherwise in good health. He was ordered to abandon his occupation, get some work on the pit-bank above-ground, and to take acetate of strychnia thrice daily, in increasing doses. Under this treatment he rapidly improved, and on May 20th, the date of his last visit, it was difficult, either by stooping, fixation,

or diminished light, to induce sufficient oscillation to demonstrate the case to a medical friend who was present.

CASE 3.—Jacob S——, of Kimberley, aged forty-four, came under my care in November, 1872, complaining of dimness of vision, so great that he had been obliged to give up his work. He said that on fixing his lamp in order to break up coal the light began to dance about; he turned giddy; objects seemed enveloped in a mist; and he was obliged to desist. On examination with the ophthalmoscope in a light room, the peculiar fanning motion was at once developed, and the nature of the complaint made manifest. No disease of the optic discs or eyeballs was to be detected, and his health was otherwise good. He was ordered to give up working in twilight or by artificial light, to wear blue glasses, and to take strychnine three times a day. Under this treatment he gradually improved, and in eight months' time he ceased to attend.

It is unnecessary here to reproduce notes of similar cases, for the essential features are the same in all. So far as I can ascertain, this is a new disease; but, however much we may regret the addition of one more malady to our nosological list, I think we may at the same time congratulate ourselves that it is so amenable to treatment, and that the remedy is so simple, easy of application, and generally successful.

Nottingham.

NOTES ON A

CASE OF PYÆMIA IN PRIVATE PRACTICE.

BY LEONARD CANE, M.D. & B.S. LOND.

THE following notes of a case of pyæmia present some features of interest, and may be worth recording.

I was called on the 9th of September, 1874, to see a gentleman holding the post of Government contractor. He told me that he had recently come by train several hours' journey when he was seized with a sudden attack of "shortness of breath," caused, as he said, by a lump coming down in his neck from under his jaw. The dyspnœa had been relieved by rubbing his neck briskly with some oil. The only history he then gave of his illness was that he had got very wet in a rough sea passage, and believed he had caught cold and that it had settled in his throat.

On examination I found a large swelling, about the size of a hen's egg, below the jaw on the right side, occupying the situation of the submaxillary gland. The swelling was tender, hard, and painful, and appeared to be an inflamed lymphatic gland. The fauces were seen to be red, especially on the right side, and there were some traces of old ulceration. On inquiry, he stated that he had had an ulcerated sore-throat several months previously, and that, though this had got quite well, he did not think he had been right ever since. He had felt "chilly," but had had no distinct rigors. He was perspiring very freely. Pulse 110; temperature 99·4°. Ordered saline mixture, and liniment for his throat.

He improved for a few days. The swelling rapidly increased to the size of an orange, and then, without any other symptom, slowly subsided. He was then able to take solid food, which he had avoided before, owing to the pain it caused him.

On September 12th, feeling much better and being anxious to get home, he went in a cab for a distance of about a mile. On arriving at his destination he felt very "chilly," and at once went to bed. On the next day he was attacked with diarrhœa and vomiting, and his evening temperature ran up to 100·8°. The diarrhœa and sickness soon ceased, and during the next week he seemed to improve slightly. The chief symptoms during that time were debility and a high evening temperature (100° to 101°).

On September 20th (eleventh day of illness) he suffered from one or two severe rigors, followed by profuse sweating. He now for the first time complained of pain in his left hip. There was nothing that could be detected wrong with the hip beyond a little pain in moving the limb. The diarrhœa became very troublesome; and the stools were remarkably offensive. The urine became highly albuminous (one-third albumen), containing some blood-corpuscles, casts, and epithelium. He now sweated profusely, the perspiration pouring off him and wetting the bedclothes. He was extremely restless, and could not sleep at night. I now gave him two and a half grains of quinine every two or three hours, with a little opium to counteract the diarrhœa, and a chloral draught at night.

At about this date (Sept. 20th) I noticed for the first time a small quantity of blood on the nose; and, on inquiry, found that he had suffered from a discharge from the nose, occasionally of a bloody nature, but usually like ordinary mucus, for several weeks. I accordingly made further inquiries into his history, and learnt the following facts. He stated that he was a native of the West Indies, and that he had yellow fever when about twelve years old. A few years ago he had syphilis, having a sore on the penis. This was followed by a few spots on the leg, one of which caused deep ulceration, and of which the cicatrices still remained. About a year before his present illness he was in a railway accident, but, though he was much bruised at the time, he did not receive any wound.

About ten weeks before his illness he married, and states that a few days after his marriage he suffered from "spasmodic stricture." For this he was obliged to call in a doctor in the middle of the night. The surgeon passed a catheter, and drew off a considerable quantity of bloody urine. He continued to pass small quantities of blood with his urine for several days after this. He now came to live near London, going to the city every day, where he was chiefly employed in tea-tasting, being frequently at the docks. On inquiry, he said that he had seen a great quantity of raw hides, which smelt very badly. He had also been round the surgical wards of a hospital on several occasions. Eight weeks before his illness he had suffered from an ulcerated sore-throat, which he was told was "syphilitic." He said that "one tonsil was nearly eaten away by the disease." Since then he had got much better. He had been over to Ireland, and though he had not felt well there was nothing much the matter with him. He usually noticed that when he blew his nose in the morning he "got rid of a small piece of matter," which he sometimes "spat up." He said that this came from the back of the throat. He continued to do this until I saw him.

On the 21st of September (twelfth day of illness) he suffered from two severe rigors. His morning temperature was 102·4°; evening 103·8°. The diarrhœa was profuse, with most offensive stools. He sweated very much after the rigors. The urine was highly smoky in colour, and contained about one half of albumen. On this day he first complained of pain in the right wrist, which he attributed to having "ricked" it by holding a book. The joint was painful and tender, and there was some slight swelling. On the following day the swelling had increased; there was a blush of redness over the back of the wrist, and also some pitting on pressure. The diarrhœa still continued; the sweating was profuse. Temperature 103·6° in the evening. He now became very sallow, but not distinctly jaundiced. He was very restless, tossing about continually. There was not any sweet hay-like odour of the breath. The liver was enlarged, but not tender.

On Sept. 23rd I met Dr. Wilson Fox in consultation. Dr. Fox found some congestion at the base of the right lung, and also a basic murmur of the heart. Dr. Fox advised a continuance of the quinine with the addition of some digitalis. The next day there was but little change. On Sept. 25th he had another rigor and felt severe pain in the left knee, which began to swell. The swelling advanced rapidly, and in a few hours the knee was double the normal size. This was followed by œdema of the whole of the left leg and thigh. The right arm was also much swollen, and there appeared to be some fluctuation in the wrist-joint. On the following day (26th) he appeared to be much lower, the respiration became very frequent (35), and there was consolidation of the bases of both lungs. He had a frequent dry cough, but did not expectorate.

Tympanites now set in, and was very troublesome. Dr. Hollings, who saw the case with me for the last few days, advised an enema of assafœtida and of starch and opium. This produced some relief. During the next two or three days the chief symptoms were connected with the lungs. The respiration rose to 44; pulse 130; temperature 104° F.

The respiration became worse, and he sank on Oct. 1st, three weeks after the commencement of symptoms.

During the whole time he took nourishment freely, which consisted of strong beef-tea, eggs and milk, broth, &c. &c.; also a fair amount of stimulants, in the shape of brandy, wine, &c. Unfortunately no post-mortem could be made.

Peterborough.

A Mirror of HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.

AN UNUSUAL CASE OF URÆMIC POISONING; EPILEPTIC CONVULSIONS, FOLLOWED BY COMA; ULTIMATE RECOVERY, WITH TOTAL LOSS OF SIGHT.

(Under the care of Mr. JABEZ HOGG.)

FOR the following notes we are indebted to Mr. G. E. Alford, house-surgeon.

Jane F——, aged nineteen, a servant, was admitted on the 8th December, 1874, said to be suffering from sympathetic ophthalmia of the right eye. The left, it was stated, was lost when she was five years old, a pair of scissors having been thrown at her, which penetrated the globe. Her right eye had become affected only a few days previously. She brought with her a note from an eminent surgeon recommending its immediate extirpation, but giving no history of the case. She had been an inmate of the House of Charity, Soho-square, for some days; and previously—about four months ago—had been under treatment at a West-end hospital. This, however, was not mentioned at the time of admission, nor was it discovered until after extirpation of the eyeball. She appeared to be rather stupid, and little information concerning her could be obtained.

Mr. Hogg saw her, and, not having been made aware of any previous illness, concurred in the operation, which was accordingly performed whilst under the influence of chloroform. She took the anæsthetic very badly, her pulse being considerably affected and her respiration very shallow and irregular. Her complexion was rather dusky, and became much more so during the operation. There was considerable hæmorrhage from the orbit, which was, however, easily and speedily checked. She quite recovered from the chloroform, and seemed as well as could be expected, sitting up to have some tea, until 6 P.M., when she had a fit, in which she was quite unconscious, ground her teeth, became very cyanotic, and indeed partially asphyxiated. From it she perfectly recovered on the application of cold wet towels to her chest and head. After consciousness returned she said she had never had any fits before. Very shortly she had another similar to the first, and from that time they continued at intervals of less than an hour through the night until noon the following day. After each fit she was increasingly unconscious, until at length she ceased to be at all sensible in the intervals, and lapsed into a state of coma combined with convulsions. The fits were sometimes so severe as to threaten asphyxia, and artificial respiration was resorted to after several.

During the evening a fuller account of her previous history was obtained from her friends. They stated that neither she nor any of the family had ever been subject to epileptic fits; that about four months ago she had been an in-patient at a general hospital, suffering from œdema of the legs, together with some ascites; that she had never quite recovered; and that during the last few days she had appeared to be very dull and stupid, complaining a great deal of her right eye and her head. There was no history of scarlatina. Her mother and a sister had both died of Bright's disease.

(On making a microscopic examination of the extirpated eye it was found to be completely disorganised; small nodules of calcareous matter were everywhere firmly attached to the choroid, bearing a certain relation to the choroidal vessels. The retina was detached, and simply existed as a thickened fibrillated cone from the optic nerve.)

Dec. 9th.—Fits less frequent; but coma more complete. The right eye was now examined with the ophthalmoscope, and found to have the white and opaque spots distributed over the fundus diagnostic of retinitis albuminurica. She passed ten ounces of urine during the night; but, as many hours had passed since, it was deemed necessary to use a catheter, of which she seemed to be quite unconscious. Urine: sp. gr. 1015, acid; albumen two-thirds. Ordered six ounces of brandy and some beef-tea, which she swallowed by teaspoonfuls without much difficulty. The fits became gradually less frequent, and there was none after 3 P.M. Catheter again passed in the evening, and a pint of urine drawn off; albumen one-half.

10th.—No fits during the night; passed no water; unconsciousness incomplete. Nineteen ounces of urine were drawn off by catheter, containing rather less albumen. Six ounces of gin were ordered in place of the brandy. In the evening a pint of urine was drawn off. Yawns a great deal and seems very drowsy, but is becoming much more sensible. Will not take beef-tea; milk given instead. Ordered one drachm of the solution of acetate of ammonia, and five grains of bicarbonate of potash, every four hours.

11th.—Passing no urine. On introducing a catheter thirty ounces were drawn off; albumen one quarter. She has spoken several words, and seems partly to understand what is said to her, but is very drowsy, and will not answer. She took two quarts of milk during the day; no beef-tea.—11 P.M.: Has passed plenty of urine naturally this evening, and now talks a good deal.

12th.—Slept most of the night; talked at intervals. Urine light-coloured; sp. gr. 1010; neutral; albumen one-sixth. Has passed two pints of urine since it was last drawn off, yesterday morning. She occasionally talks; is quite conscious. Takes less milk; ordered eggs beaten up in brandy. In the afternoon she was very excited, talking and laughing; tongue very furred. Ordered three ounces each of brandy, gin, and sherry, and eggs beaten up. Very restless in the evening, but quite sensible.

13th.—Slept more quietly. Passed some of her water under her. Slight tremors down the affected side (left) this morning. Complains of pain across her forehead and the back of her head. Right eye very sensitive and painful. Urine: sp. gr. 1011; slightly acid; albumen one-third; quantity unknown, as some was found in the bed.

14th.—Slept well; does not hold all her water; has taken little else than brandy and eggs. Urine: light-coloured; sp. gr. 1010; acid; albumen nearly one half; cellular casts; scaly and spheroidal epithelial cells. By means of the ophthalmoscope the fundus was seen to be quite white. Her left side twitches occasionally. Talks and laughs a great deal; very sharp in answering questions. At 3 P.M. all stimulants were withdrawn, and at 7 P.M. she was much more rational. Impulse of heart is felt over a very large area, and is powerful. Precordial dulness extends from the third left costal cartilage to the sixth, and from the right side of the sternum to four inches beyond its left margin, at the level of the fourth intercostal space. Sounds very distinct, tumultuous, rapid; no bruit.—Evening: Pulse 120, temperature 98·4°; respiration 30.

15th.—Slept quietly. Two ounces of sherry allowed. Fainted for a few minutes in the morning. Bowels opened freely. Urine: albumen one quarter. Ordered ten grains of citrate of ammonia and iron, with the acetate of ammonia. Fainted twice in the afternoon. More stimulants ordered. Very drowsy; pain in head and eyes.—7.30 P.M.: Temperature 98·4°; pulse 120; respiration 22. Constant tremors over whole body; moderately sensible, but does not speak; face very dusky.—10 P.M.: More rational; retches a good deal.

16th.—At 5.30 A.M. had another fit; face dusky; respiration rapid, short, and shallow; heart tumultuous. She came round in about fifteen minutes; complained of much pain in eye and over heart. Belladonna fomentations to former, and linseed poultice to latter. During the day the lids became very œdematous, and there was much chemosis. Urine: albumen one quarter. In the evening she was sick several times, and unable to take milk. She kept down eggs beaten up in brandy until later in the evening, when that also was brought up. Pulse 124, weak and compressible.

17th.—Slept little, but quiet; a good deal of discharge from right eye; takes nothing but stimulants; fainted several times during the day; lies very quiet and scarcely speaks, but is quite conscious. Pulse 120, weak. Ordered five grains of carbonate of ammonia with the acetate of ammonia. Keeps down rum-and-milk and egg-and-brandy in small quantities.

18th to 25th.—During this period she gradually improved. She began to eat a little fish, and then some meat, although sometimes she was unable to keep anything down. Pulse varied from 96 to 126, and became stronger; temperature from 99° to 101°; albumen in urine varied from one-half to one-quarter. She had more or less pain in the eye and head, relieved by cold applications and belladonna lotions. Bowels opened regularly.

Dec. 25th to Jan. 10th, 1875.—Continual slow improvement; headaches less violent. Towards the end of this period she sat up for a few hours most days. Albumen decreased, varying from one-fifth to one-tenth. Has fainted two or three times, but only for a few seconds.

Jan. 12th.—The retina is seen with the ophthalmoscope to be completely detached at its lower part; disc invisible; lens clear.

17th.—Felt very weak and fainted; appetite bad; headache; pains in head and back.

25th.—Has slowly improved again; bowels constipated; albumen about one-eighth; pulse from 64 to 80; she sleeps fairly. A pill containing one grain each of scammony, jalap, aloes, and ginger was ordered every other night with good results.

31st.—Has remained *in statu quo*. In the evening she complained of a violent pain in the right eye. She had been very quiet all day. Her face was rather dusky. At 12 P.M. she was unconscious and moaning.

Feb. 1st.—Passed a very restless night, at times quiet, and then moaning, screaming, and trying to get out of bed; very sick; lids œdematous; face dusky and puffy; passed plenty of water; albumen one-third. Became more conscious towards evening.

2nd.—Slept well; quite conscious. At 3 P.M. again unconscious, moaning, screaming, and tearing her hair. Continued thus all the evening. Forty grains of compound jalap powder were given her, but did not act on the bowels.

3rd.—At 1 A.M. had a distinct fit, similar to those described on the first day. A second followed at 2.30 A.M. Each lasted about fifteen minutes. Passed very little urine all day, but bladder remains empty. During one fit the pulse rose to 180 in the minute. Iced water to head; brandy-and-water to drink; nutrient enemata. Had fourteen fits between 1 A.M. and 2 P.M. From that time she had no return of them, and gradually recovered consciousness.

6th.—Is much better; restless night. Bowels not opened for a week; one drop of croton oil given in a pill; they acted freely afterwards.

13th.—Improving slowly. Left off the medicine she has been taking ever since she has been here, and was ordered ten grains of ammonio-citrate of iron with some acetate of ammonia. Croton oil has been required once since Feb. 6th.

From this time she gradually improved. Albumen about one-sixth. She was very weak, and did not sit up until March 9th. Fainting fits occasionally. Lids more or less œdematous, varying from day to day. Feet and legs have not been swollen at all.

March 25th.—Ten grains of saccharated carbonate of iron ordered instead of medicine, as the latter makes her sick.

From this date she rapidly improved, and sat up for several hours every day. She just sees the shadow of one's hand passing the window, but the retina is coërcted. Lids less œdematous, and general appearance improved. She was now able to move about and help herself; and, being desirous of returning to her friends, was accordingly discharged on April 3rd last.

BELFORD HOSPITAL, FORT WILLIAM, N.B.

CASE OF DISTRESSING DYSPEPSIA; ADMINISTRATION OF CARBO LIGNIS; MARKED RELIEF.

(Under the care of Mr. JAMES W. ALLAN.)

JOHN R——, an elderly man, long a hospital patient, suffering from dyspepsia, was seen on the 6th of March, 1873. The symptoms were of an aggravated type, the flatulence being particularly annoying, and the patient was very much distressed. The following remedies were administered in succession:—Salicin, sulphate of quinine and sulphuric acid, subnitrate of bismuth, and citrate of ammonia and iron. But these medicines did not seem to afford any permanent relief.

On the 25th of February, 1875, the following powders were prescribed:—Five grains of wood charcoal, two grains of carbonate of bismuth, and one grain of powdered rhubarb, three times a day.

March 9th.—The patient experienced considerable relief after taking the powders. To have five grains of wood charcoal only.

31st.—The man says he is "upon another world," and attributes his relief to the powders. He also says that the wind has not troubled him for the last seven or eight days, and he is stronger.

April 14th.—Says his stomach is a great deal better. He thinks the powders are very good. There is some "wind" in the morning before food, but after taking something it does not trouble him till the morning again. He is hungry. Has very little pain in the stomach; he "cannot complain." He has vomited once only in the last twenty days. Before then he was vomiting three times a day. He is anxious to have a fresh supply of the powders.

Note.—This was a wretched case of dyspepsia. The result of the administration of wood charcoal has been most satisfactory. The patient's anxiety to persevere with the remedy is the highest testimony to its value. Very possibly the relief is only of a temporary nature; but even temporary relief is a great blessing in a case of miserable suffering.

Medical Societies.

OBSTETRICAL SOCIETY OF LONDON.

THE discussion on the Relation of Puerperal Fever to the Infective Diseases and Pyæmia, adjourned from the 5th of May, was resumed on the 9th inst., and was again adjourned.

Dr. SAVAGE.—Sir, I was quite prepared to commence the discussion this evening; but as I hear, with great satisfaction, that we are favoured with the presence of Dr. Farre, I should much prefer to listen to any observations that he may make.

Dr. FARRE.—I am very sorry if I have disturbed the order of the discussion, but I rise in obedience to the invitation conveyed to me by you, Sir, and, as I understand, by the Society at large, to take part in the discussion. As an honorary fellow of this Society I thank you for the compliment you have thus paid me. It has occurred to me to think what are the principal objects which the fellows of this Society had in view in promoting this discussion. Hardly, I should think, to elicit anything very new from any of the speakers; but the purpose probably was that we should compare our observations—that we should, as it were, take stock of our knowledge, and incite each other to further inquiry and investigation; and with this idea I have come to-night to take what little part I may in this discussion. In speaking of taking stock of our knowledge, I have it in my mind that we should not only compare our observations together as men of the present day, but that we should also take into account the labours of men who have long preceded us. I have no doubt that the fellows of this Society have in their recollection those excellent works of such men as Denman, Lees, Hull, and various other workers at the end of the last century, who gave their attention to this subject. I have no doubt that a great deal of information might be evoked from a reperusal of the works of those men. Actuated by this idea, and looking into some of these works, I have been struck by the observations of Dr. Kirtland upon this subject in his most inter-

esting essay, which I have no doubt is well known to the fellows of this Society, on Childbed Fever. Dr. Kirtland commences his essay by inquiring what is properly puerperal fever; and here he seems to open up the very subject we have met to discuss to-night. It is interesting to observe how a man more than a century ago took in all the points which we have now met to discuss, or most of them, and valued much in the same way as we now value these very same questions. He begins, for example, by admitting that every disease happening to a woman in childbed connected with the act of parturition may perhaps be properly termed puerperal fever, though some writers use this by way of eminence to distinguish that form which they think most dangerous from milk and other forms of fever connected with child-bearing. Having admitted this, he proceeds to offer the following objections. He says—if by using the term puerperal fever these writers had chosen to fix upon any particular form, it might have answered a good purpose; but he does not see what good will arise from combining together such diseases as may happen to a woman in child-bearing, as inflammation of the uterus, or putrefaction of clots within the uterus, producing fever, or a fever engendered from without by the admission of atmospheric poisons. Then he adduces several such instances as the proposer of this question has adduced. He mentions the case of small-pox occurring to a woman in childbed, hospital fever, and the like; and then he discusses the propriety of considering these as puerperal fever at all. He points out very accurately that when we give a specific name to a disease the name ought rather to indicate the disease than the condition of the individual in whom it occurs. Then he makes another excellent observation, which I think we should all keep in view—namely, that when we speak of fever we are not speaking of a disease, but of a sign or a set of signs indicative of a mischief going on within. He then sums up by saying, "In short, the writers in the present day seem to include under this name of puerperal fever a thousand disorders." Now that, I think, is as nearly as possible in accordance with the views of the fellow of this Society who has brought the matter under our consideration to-night. He objects to the term "puerperal fever," and he thinks that we ought to distinguish the different diseases which have been classed together under this title. I suppose he had in mind some such idea as that which actuated Lord Bacon in reminding us that we are all too much in the habit of neglecting things and worshipping specious names. I suppose that in the use of the term "puerperal fever" we have for a long time been worshipping a specious name, and not considering sufficiently the thing which that name indicates. Having asked your attention to the works of this author, and shown how far his idea seemed to be in a measure coincident with those which are now under discussion, I would proceed to refer to a few of the circumstances connected with the definition of puerperal fever which has appeared in the work known as the "Nomenclature of Diseases," emanating from the College of Physicians. I should not have done this if the author of these questions had not done me the honour to mention my name in connexion with the part which I took in the Nomenclature Committee of the College of Physicians in respect to this matter, as one whose business it was mainly to suggest to that Committee the various definitions that should be accepted in regard to those subjects that come particularly under my department. I think some little apprehension must have arisen as to the objects of the Committee in framing that definition and offering it for the consideration of the profession. In order to make this clear perhaps you will allow me to call attention to one or two observations that are made in the introduction to this work. Few men, I believe, read the preface to a book, and it may be that many of the fellows of this Society have not read the few observations that precede the catalogue of diseases known as the Nomenclature of the College of Physicians. They begin by saying:—"The object of this Nomenclature is to aid in perfecting the statistical registration of diseases with a view to the discovery of statistical truths concerning their history, nature, and phenomena." Beyond this they do not profess to proceed. They then call attention to this fact, that whilst generally speaking the name of a disease only is given, as small-pox, for instance, which requires no explanation, there must naturally occur some that would seem to require explanation, and to those they have added a definition; but then they distinctly say those diseases only have been defined which seem to require it, and the definitions have been framed for the purpose of identification only, not as explanations of the phenomena of disease; so that when a definition is offered, it is offered under these circumstances, and there is no attempt at dogmatic teaching or entering upon any other considerations than those which would enable practitioners whose business it was to register the diseases under their respective titles to identify the disease that was intended. I think it is as well to keep this in view with reference to the observations made upon this subject by the proposer of these questions. Now, I would like for a minute to draw attention to the definition of puerperal fever here offered. It is defined to be "a continued fever communicable by contagion." I ask your attention for a moment to the word "communicable," for there was a good deal of discussion upon it. It is simply meant to convey the idea that the disease may be communicated or is capable of being communicated, but that it does not necessarily arise in that way—that it may have a more spontaneous origin. "A continued fever, communicable by contagion, occurring in connexion with childbirth, and often associated with extensive local lesions, especially of the uterine system." That word "often" was also made the subject of comment, and I wish to observe, in connexion with what has gone before, that the object of introducing that word was simply to call the attention of those who would have to register disease to the frequency with which these complications arise; there was no intention of entering upon any doctrinal question or expressing any views as to the precise nature of the disease under consideration. Then there is added a note in which those who register diseases are requested to return under the name "puerperal fever" the more important local lesions, such as peritonitis, effusions into serous and synovial cavities, and the like. That is done for the same purpose, so that nothing might escape observation, and that every circumstance connected with the disease should be carefully recorded for the purpose of collecting facts. I will now allude to the place which this term puerperal fever occupies, because I observe that it has excited much attention. It is not placed among the fevers at all; it is placed among the general diseases, but it is placed far away from the fevers. First of all come the infective fevers—small-pox, cow-pox, chicken-pox, measles, and the like; then lower down in the list follow pyæmia, erysipelas, &c.; then comes puerperal fever. It was placed in this position because the Nomenclature Committee were entirely at a loss to know where it ought to come in the catalogue of diseases; it found a place of refuge at last at the bottom of the list, after pyæmia, erysipelas, &c.; and the Committee had it in their minds to indicate by the place which they assigned to the disease the apparent connexion of puerperal fever with those antecedently named diseases. I would further call attention to the fact that, independently of this, there is in the Nomenclature a list of those affections which are consequent on parturition; and this is quite apart from the subject which we have now been considering. Now, in connexion with the same subject, I would ask the fellows to consider if there is any objection to this term puerperal fever. What is meant by the term fever at all? What are our views with regard to fever? Do we consider fever as a disease to which we ought to attach a special name? or is it only a symptom (as Dr. Kirtland long ago reminded us) of a disease? Do we regard fever—that is, the pyrexial action—as anything more than an indication of an underlying disease? If we keep this in view we shall find the difficulties that continually occur in framing a nomenclature when we take the name of a disease to indicate that which does not signify its nature. These few observations I thought it right to offer with respect to this part of the subject. And now, as each of us is expected to answer to the best of his ability the questions put to us, I will take them in turn. But first I must confess that in approaching this subject I feel a great difficulty on account of the manner in which it is brought under our notice. I observe that these questions, that only profess to be questions, assume rather the form of an argument. They are rather put to us in a syllogistic form, and they are intended to lead up to a conclusion, though no conclusion is stated. Obviously they are questions merely, and they are left to us to consider. But if we are to

follow the order of these questions, I must say it is with some difficulty that I approach the subject, inasmuch as that which we have to deal with is associated with a great deal of imperfect knowledge, and we cannot precisely formulate all the facts so easily in the shape which is offered to us. Still, with this difficulty before me, I will endeavour, to the best of my ability, to notice each of these three questions. The first, as you well know, relates to this—whether there is any form of continued fever communicated by actual contagion or infection, in connexion with childbirth, which is distinctly caused by a special morbid poison, and as definite in its progress as the diseases which are taken in illustration? To that question I can return a very plain answer, and say that I am not aware of any form of contagious or infectious fever connected with childbirth which is distinctly caused by a special morbid poison (if by that is intended a specific virus), and which has a definite progress. I am not acquainted with such a disease. The next question and the following one must, I think, be taken together: "May all forms of puerperal fever be referred to attacks of some infective continued fever—as scarlet fever or measles—occurring in connexion with childbirth, on the one hand; or, on the other, to some form of surgical fever, or to erysipelas, caused by, or associated with, changes in the uterus and neighbouring parts following the process of childbirth?" I am unwilling to give an answer to that question, because I wish to keep open another subject, which seems to be closed by the question which follows it. If I were to give an answer to that question I should be shut out entirely by the form that is laid before us from giving a satisfactory reply to the third, which is this—"If all cases of contagious and infectious diseases which occur under other conditions than that of childbirth are set aside, does there remain any such disease as puerperal fever?" Now it is to the form of this question that I wish to take exception, because it appears to me that in this question the several infectious and contagious diseases are treated as if they occurred in the body of a man, a non-parturient woman, or a child, whereas I wish to keep together the connexion which associates them with the act of parturition, and shows them as occurring in the parturient woman, and I think it is the separation of these two conditions that occasions the difficulty I now encounter. I cannot, consistently with my experience, agree to consider these diseases as one and the same when they occur to the non-parturient woman and the parturient woman. I think here there are several circumstances that have to be taken into account. In the first place, when any of these attack a parturient woman, she is not in the same condition as a healthy person whom they may attack. Scarlatina, measles, and the like, occurring to healthy persons, do not enter the bodies of those individuals in the same condition as they enter the body of a parturient woman. Let us remember, in the first instance, she has been in some degree weakened by the previous confinement. It may be said, "Well, but in some cases we have a parallel case in which the disease here mentioned follows after an operation." But I will go further. We have two processes going on in the body of the lying-in woman naturally which do not occur in the person of one ordinarily struck down by one of these diseases. First, I refer to the milk process, the milk secretion, and to that attendant disturbance of the constitution which we term milk fever. That is one element to be taken into consideration, and one disturbing force. And there is another and a much more important one, and that is the changes which go on in the uterus, and which we all know as the involution process. Nothing of this kind occurs in the body of an ordinary recipient of those diseases. This natural process, as we know, goes on in the body of a woman at a time when she is most likely to be attacked with the diseases that we have met to consider; and when any of these diseases attack a parturient woman this process is materially interrupted. Now we know that when this process is interrupted there is an arrest of all that eliminative action which that process implies; and we may fairly conclude that, in consequence of this arrest, there is some accumulation in the body of those effete matters which ought to be expelled from the system; and this, added to the already existing blood dyscrasia, must very much aggravate the disease. Nor is it quite certain that this may not add a new form of sepsis to that which is already in the blood. Before admitting, therefore, that there is no such thing as puerperal fever, I would say that all these things ought to be taken into account. It has been thought by some that such a thing as a pure and independent puerperal fever may be found. I should be sorry to shut out that idea altogether as one that is impracticable and not to be entertained. I think it is very easy to see where we shall find puerperal fever, if we are to look for it at all; I mean a fever not caused by any of the circumstances here suggested to us. It is quite plain that we must look for it here in the arrest of some of these processes that I have been referring to. If we are to look for a puerperal fever at all—one that can be properly so called, a disease which is *sui generis*,—we shall probably find it in the interruption of these healthy processes. Then, if I am not trespassing too long upon your attention, I should like to express a little more clearly my views with regard to puerperal fever. I very much regret now that when we were framing this definition it did not occur to me to suggest that the term "puerperal fever" should be rendered "puerperal fevers," and that a note should be placed to the effect that under this name is intended to be comprehended a class of continued fevers communicable by contagion, occurring in connexion with childbirth, and so on. I think we should have got over a good deal of the objection taken to this word if we had considered this, not as a special form of fever, as it appears to be when it occurs in the Nomenclature, but as a group of fevers connected with the act of childbirth. If I were asked how I would classify the diseases that we have been in the habit of grouping together under the name of puerperal fever, I would divide them into these three, as it appears to me, very natural classes. We have to look at this matter in a practical light, and see how we shall consider this subject, not by the teachings of the dissecting-room, but as we see it in the lying-in chamber. When asked, as we constantly are, to determine the nature of the disease that we are called in to examine and advise upon, I have been in the habit of dividing all cases that can in any shape be termed "puerperal fever" into three classes. First, those simple fevers which may, for want of a better term, be called "irritative fevers"—and under that name I would class that febrile action which results from simple mammary irritation, and is known as milk fever; those simple febrile consequences, of a traumatic origin, which result from slight injuries to the soft parts, laceration and the like, though these are of rare occurrence; and those pyrexial states which are of a fugitive nature (I think, in a second catalogue in the Nomenclature, we call them "puerperal ephemera"). First, then, we have those irritative fevers arising from some local irritation, and not implying any blood infection of any kind. In the second class I would place those infective fevers which are not of a specific origin, and in which the poison or sepsis does not undergo a distinct period of incubation, though I have no doubt there is poison conveyed into the blood, in what way it is not necessary now to consider. Under the name, then, of the milder forms of infective fevers I would class all those in which the process does not undergo a period of evolution, a period of development, and in which the consequences follow no definite order. Then in the third class I would include eruptive fevers and those which depend upon a blood infection, the poison following a specific course, having a regular period of incubation, and terminating in those several diseases, eruptive fevers and the like, which occur of course to the lying-in woman in common with others. These I do not consider as in any way taking a part in the puerperal fever. The only fevers that I would acknowledge as in any way connected with the puerperal state are the first two. I would entirely exclude the others from the catalogue; but, in the present imperfect state of our knowledge on these questions, I would like to retain these diseases under some name corresponding to that under which we now group them together. If I proposed any alternative I would change the name; one that I am in the habit of employing is post-partum fevers. I have long discarded the name puerperal fever, and have used the term post-partum fevers, which implies no theory at all, but simply expresses the fact that they occur to women after delivery. I think that under that head we might include all these three forms of fever. If for the purpose of statistical registration it was desired to know how these names should be registered, I would suggest that those cases should be registered under a separate head in connexion with childbirth, never mind in what relation

they stand. I would place, for instance, "scarlatina" and "scarlatina in the puerperal form" in parallel columns; "erysipelas" and "erysipelas in the puerperal form." In this way we should satisfy the requirements of the Nomenclature Committee, and not foreclose that most important question that we have now under discussion. I dare not trespass longer upon your time. I cannot venture to offer any further observations upon this subject, but I may at some future time, if you please, further develop my ideas, and particularly call the attention of the Society to this circumstance, which appears to me to have been left too much out of consideration. It seems to me that in considering the pathology of these cases we have given too much attention to the influence of a blood poison, and have lost sight of that intermediate condition—or, rather, we have not attempted to determine it—which intervenes between the entrance of the poison into the blood and the development of it in the various ways and forms which give significant names to the diseases under which they are classed. I think we have too much left out of consideration the influence of the nervous system, the influence of these poisons upon the nervous centres, and I think if we were to direct our attention further to this particular, we should be able to throw a great deal more light upon these diseases, and perhaps get over the difficulties that now surround us.

Dr. SAVAGE.—I feel under some embarrassment after hearing Dr. Farre. I certainly came prepared with very decided views, but they have been somewhat shaken by what has fallen from that eminent authority. With regard to the questions of Mr. Spencer Wells I do not know why Dr. Farre finds any more difficulty in dealing with them than the rest of us. Evidently the object is to catch us at every corner, so that we might not escape from the subject in any way. I can scarcely agree with Dr. Farre in leaving the subject in so uncertain a state as he proposes. We have already had, in the course of the last two discussions, some positive statements made to us, which touch closely on the real nature of the complaint. I was at an earlier period prepared to argue strongly against any pathological relation or affinity between fevers and these under discussion, but I listened attentively to what fell from Dr. Squire and some of our country friends, who sustained so well the argument on that point that I think it is scarcely necessary to trouble the Society with any observations of mine. I only wish to say that there seemed to be, on the part of Dr. Barnes and Dr. Braxton Hicks, a clinging to the opinion that there was a sort of connexion between scarlet fever, or the sort of scarlet fever that they had seen, and puerperal septicæmia. It could not have been the orthodox scarlet fever, because it is clear that you can have in a parturient woman right down scarlet fever, and she will get over the scarlet fever and the parturition exceedingly well. I suspect these gentlemen mean some other form—a bastard form of fever—that sort of thing spoken of by pathologists in their new vocabulary when they say a thing exists "potentially" and not actually. I will not criticise anything that has fallen from these authorities. I will only say that I find a difficulty in recognising the presence of any disease in the absence of its distinctive symptoms. Now, is this a fever in any sense of the word? First, we have decided that it is utterly distinct from such things as we have called fever. Is it fever? We all agree that there must be some heat of the skin, some elevation of the temperature, in anything that you can call fever. Now I know that you may have many of these fatal cases of septicæmia in a parturient woman, running their course in eight days, without any elevation of temperature from first to last. Or it happens that there is a temporary elevation on the second day after you discover the presence of the poison. I agree with Dr. Farre that a great deal may happen before you discover the presence of the poison. It is not impossible that if we kept our eyes open and watched, we might anticipate the effect of the poison; but this is seldom done. We see the cases late, and they are generally fatal. In the matter of temperature, then, I think it is clear that the disease should not be called fever at all. Then the next point is whether it is septicæmia peculiar to a parturient woman, not like any other septicæmias. I have seen septicæmias from operations on silly women who are not intended to have a family—who are intended to be barren; septicæmias from the introduction of that most treacherous of all things, the uterine stem pessary; septicæmias from legitimate operations upon the uterus; septicæmias after ovarian operations. I have seen all these; I have also seen (but I am no authority upon that point) surgical septicæmia in wards; and I can distinguish no difference between them and septicæmia in parturient women. I think this is a simple septicæmia—that is, a disease which you must set apart from every other sort of disease likely to occur in parturient women, such as the disease you call fever in connexion with the secretion of milk and other fevers. It stands quite apart and alone, and I think it of great importance that we should consider it as such. I think if we do not we shall be likely to overlook it in our patients, and instead of applying, as we might with some effect at an early date, some remedy, we may let the case go on until it is past hope. Now, do we know anything of the poison? Have any of us seen, or touched, or felt it? Mr. Wells will tell you by and by, if he pleases, that in the course of ovarian septicæmia he sometimes taps the peritoneum with great effect, and lets out a great deal of it. There must be poison in or about it, because the woman gets better when it is let out, gets worse again when it accumulates, and again better when it is let out. Then there are the processes, which it would take too long to enter into, such as washing out the peritoneum and the like. If the case is taken in time the woman gets well. Evidently in such a case we are dealing with a poison in some shape or other. Is the whole fluid poisonous, or is there something special in it? Our German *confrères* have helped us a good deal in this way in a negative sense. The ordinary results of putrefactive changes in dead matter should be carefully distinguished from the changes which occur in fermentation; they are two different things, too often confounded. Some are sulphuretted hydrogen, sulphuretted ammonia, butyric acid, and leucine; there are other things no doubt, but these have been discovered. I am referring to the experiments of Billroth and Weber. They take a solution of each of these things and throw it into the cellular tissue of dogs and horses, and produce in each instance septicæmia, the animals dying in the usual way. You could not tell whether they had chills or not, still they died, and it was clear that they were killed through septicæmia. If you inquire as to the cause, they can tell you that. I must not forget to say that sometimes the severity of the symptoms did not accord with the offensiveness of the liquid. I have had my fingers in that liquid and could not eat my dinner comfortably for a week. I have no doubt that if I attended a parturient woman with my fingers in that state, she would have septicæmia. In the case of the peritoneum it is clear that this question can be answered. What are the channels for the introduction of this fluid into the system? Unless the peritoneum is inflamed, it is clear it must enter through the absorbents. There is an instructive experiment by Dr. Sanderson in his beautiful book lately published, where he shows that liquids may possibly get into the system through the vessels, but what he calls "particulate" poisons cannot—they must enter in by the absorbents. I do not know what he alludes to by those poisons, but I refer gentlemen who wish to know more about it to the book itself. It is quite clear, then, that in the case of the peritoneum it must enter in through the absorbents, that is if it is "particulate," because it is asserted by the more recent pathologists that all septic matter is particulate, which I think is a mistake. I am sure one of Billroth's experiments shows that it is a mistake, because a solution of sulphuretted hydrogen cannot be particulate. Let us apply this to the uterus. We are first in some difficulty, unless you acknowledge the existence of absorbents such as you have them in the peritoneum. I think these absorbents are denied. Dr. Farre seems to deny them in his book, but then that was written long before Recklinghausen's discoveries. They are omitted also in a recent communication to our Transactions. Still they do exist. I make this remark the more because there was a theory started by Dr. Graily Hewitt here the other day called (I see by the report) the "burglar theory"; that is, he said he had no doubt that in the majority of instances there was an imperfect contraction of the uterus, a clot within it, clots within the veins; and the locks being taken off the doors, and the doors thrown wide open, the thief stepped in. In the first place, I can scarcely imagine such a state of the uterus without considerable hæmorrhage. He also spoke of sinuses of the uterus. Now

there are no sinuses of the uterus in my opinion. I do not know of any open sinuses after parturition at all. I know it is exceedingly difficult, in the dead subject, to separate the placenta from the uterus without tearing into the veins. Those large veins follow the contour of the uterus. Nothing is so easy as to separate the placenta in placenta prævia: you come in contact with none of the large veins; you feel the small arteries, veins, and absorbents yielding; you separate the whole, and there is the uterus still in a dilated state, and no hæmorrhage. That could not be if there were open sinuses. Even if you have got clots in the veins, it is a matter of demonstration, since Virchow's discovery of the true mechanism of emboli, that clots in the veins do not get into the circulation by themselves, they never break up. That was the old opinion of Dr. Lee, whose name has not been sufficiently mentioned, except by Mr. Hutchinson. Dr. Lee showed incontestably that one of the concomitants of this disease, septicæmia, was a clogging of the veins; but it was Virchow who demonstrated (it was quite a demonstration) that the clots will not break up: that is not the way that clots get into the circulation. Books on pathology, especially German books, describe how the veins empty themselves, but time will not permit me to refer to that. We have arrived at this, that you cannot get the poison through the veins. We have then to do with another channel, the lymphatics. Now the lymphatics have been shown by Leopold to be very numerous in the mucous membrane of the uterus. The surface is highly absorbent, and the small vessels of the uterus are invaginated in these lymphatics. It is a very curious arrangement shown in Leopold's book. I fancy I have seen them. I do not say anything as to the microscope, since I find a power of fifty talked of, whereas I found a power of twelve difficult to manage. It seems to me then that, as a matter of demonstration, we have brought it down to this—that we have seen the septic matter, we have touched it, and smelt it; have mentioned experiments in regard to the composition of it; and we now can have no difficulty in believing that some septic stuff will accumulate in the interior of the uterus, and get into the circulation, as it did in the case of the peritoneum. Now we come to the difficulty about the fingers, because I said that if I attended a woman in her confinement with my fingers in that state, I had no doubt she would have septicæmia, and I really have no doubt of it. You remember that we had some painful statements from a gentleman in the country who seemed to have had his fingers in that condition, and who lost case after case, and was obliged to give up his practice. I know it is difficult for most of us to comprehend how it is that the mere approximation of a finger should set agoing this curious septic thing. Now every old woman will tell you that if she puts a piece of fetid meat in the cupboard, though it does not touch the rest, all will be turned in the morning. The other day, when passing a butcher's shop in a large district, I found him hard at work with all his men. Having these perplexing questions on my mind, I walked in to hear what sort of disinfectant he used, and he said, "I use no disinfectant; I wash everything with soap and water every night—hooks, cleavers, knives, and everything; then I admit the meat. If I did not, it would all be turned towards the morning." I do not myself profess to understand or explain how it is that the approximation of bad meat to good will turn the good to bad, but so it is; and we can apply that fact, though I have no explanation of it, to show how contact with a fetid finger would lead to septicæmia in a woman. Then we come to the question of pyæmia and bacteria. Now, the question of bacteria has occupied the minds of leading members of our profession during six hours, at three meetings, at a sister institution, where they all contradicted one another, and arrived at no conclusion, but made shipwreck of the whole affair. Nevertheless we are expected to entertain it. Why did Mr. Wells ask us about pyæmia? What is pyæmia? A woman after her confinement has a pain in the upper part of the thigh, and there is a little swelling; you think there must be an abscess; you open it, and you let out a pint of matter. In a week's time there is a similar swelling in the calf of the leg; you open that, and there is half a pint of matter; and then she does well. Another woman with septic symptoms dies suddenly with clots in the heart and numerous abscesses in the lung. Another has not only clots in the lungs, but has pus in the kidneys, a breaking down of the spleen, and concretions on the valves of the heart. Cruveilhier long ago injected into the medullary cavities of dogs quicksilver, and they died with all the symptoms of septicæmia; he found numerous abscesses in the body, and in the centre of each a small globule of mercury. I mention these facts in relation to the question of pyæmia. I should like to know which you call pyæmia and which you do not. In the case of a woman with an abscess in the calf of her leg you would not call it pyæmia, but if you have any septicæmia with it you then call it pyæmia; yet the source of the pus is the same; the pus is nothing but dead leucocytes in each case. I am inclined to dismiss pyæmia, as I would puerperal fever, entirely from the catalogue; and I believe Mr. Callender, whom we heard the other night, has the same feeling. He seemed to me to hesitate very much as to the term pyæmia. I do not believe that pus is ever in the blood as pus, but as living leucocytes it is.

Dr. BRAXTON HICKS.—I have never said that there is distinct scarlet fever producing puerperal fever. If Dr. Savage looks at my paper he will find it stated that it might permit a condition which we call puerperal fever to come on, and, as a clinical fact, I have no doubt of that.

Dr. SAVAGE.—It seemed to me that Dr. Hicks and Dr. Barnes had an idea that there was some connexion between the two, or between some form of scarlet fever and some form of puerperal fever. I say again it would not be real scarlet fever, because we have had testimony that you can have scarlet fever in very severe form and the woman will do well; therefore I could not imagine that regular scarlet fever was meant.

Dr. BARNES.—I also wish to disclaim the interpretation put upon my words, and I refer the Society to what I have written on the subject.

Dr. W. WILLIAMS.—In answer to Mr. Wells's first question, I can only say that in my experience I have never met with a case of so-called puerperal fever existing as a disease *per se*. I have seen many cases of disease described as puerperal fever, with all the characteristics, which I have been invariably able to trace to a cause easily recognisable and capable in most cases of being recognised early enough for removal; and, as a matter of course, I do not believe that the disease is due to any special morbid poison. In answer to the second question, I am also decidedly of opinion that puerperal fever cannot be referred to any special disease, although the existing cause of puerperal disease may arise during the progress of any one of the diseases alluded to, and many others—that is, should they happen to be accompanied by any gangrenous or suppurating wound. Women are often confined with the diseases mentioned in the same room with them, and derive no injurious effects therefrom. Again, puerperal women exposed to those diseases, and who have not been previously attacked with them, will take them as other persons without any special action on the uterine organs. I could relate numerous instances proving both these statements did time permit. I shall consider the third, fourth, and sixth questions together; the one is so intimately connected with the others. I have stated what I believe the disease not to be; I will now state what I believe it is. Every case of so-called puerperal fever—I do not mean peritonitis and such like—is due to septicæmia, to septic contamination of the blood; and its injurious effects are first and most severely recognised in the wearied and bruised uterine organs and surrounding parts. The disease then is purely septicæmic. I agree in the main, on this head, with what fell from Dr. Graily Hewitt, with the exception of his terming the disease pyæmia. It is not pyæmia, and I consider that the calling of it so has led to much of the erroneous doctrines that have been promulgated. For instance, a female, three or four days after her confinement, is taken with what is termed puerperal fever, and rapidly sinks in a few hours. It is said she has died of pyæmia. A post-mortem is made, and no pus is found, only a quantity of bloody sanious serum, with a peculiarly sickening and offensive odour. This is poisonous matter. If the patient had not been prepared, as it were, by the powerful dose of septic poison in her system, and had possessed sufficient strength and vitality to form pus, she would have had a far better chance of recovery. I look on the formation of pus as a healthy effort of nature to surround and isolate the irritating poison. In fact, I do not believe that pus—laudable pus, as it used to

be called,—whether in or out of the circulation, ever killed any one. It is only injurious when it becomes putrid. I believe that putrid animal matter acts injuriously on the puerperal female in two ways, and that the symptoms vary both in intensity and character. In both instances the septic poison enters the system, but in a different form, and as in the one case the poison is much more concentrated than in the other, so its effects are more overpowering and rapid. In the case of most intensity the poison enters the system in a state of solution; in the more chronic cases it enters as vapour. In the first case there is a breach of surface, generally in the vagina; in the other there is no breach of surface. When there is a breach of surface the septic poison comes immediately in contact with the fresh wound, and a dose sufficient to knock the patient down at once is taken into the circulation. In the other case a mass of putrid matter, it may be decomposing blood, is pent up in the uterus or vagina, and penetrates the mucous membranes and deeper tissues more slowly; in fact, it is a case of continuous poisoning. This form frequently terminates in puerperal mania. There is no such disease as puerperal fever; it is nothing more nor less than septicæmia, and is always due to the presence of putrid animal matter. Now this putrefaction may be caused in three ways: (1) by retention of portions of the placenta or blood-clots long enough for them to undergo decomposition; (2) by the bruising and sloughing of vaginal mucous membrane; and (3) where the septic poison is conveyed to the discharges of the patient, and by its presence sets up rapid putrefaction in the lochia, so rapid that when once the fermentation is set up the whole of the lochia appear to become putrid at once, like the action of yeast, or wort, or dough. The first is to be prevented by not leaving any portion of the placenta or of blood-clot (as far as practicable) in the uterus or vagina. It must not be overlooked that certain conditions of the atmosphere also tend very materially to promote this putrefactive fermentation. This has been described by Sir J. Paget, who has pointed out that at times the wounds of patients, not only in hospital, but outside, take on an unhealthy character, and become gangrenous. Of course, should any portion of placenta or blood-clot be present, your first care will be to remove them, and wash out the vagina, and, when necessary, the cavity of the uterus with some antiseptic fluid. You must not be satisfied with telling the nurse to do it, you must see her do it, or (as I generally do) do it yourself the first time. The treatment of the second form, when you have a slough, is the same—to syringe out frequently with some antiseptic fluid. To prevent the third cause every care must be taken to prevent any septic or putrid poison from coming in contact with the lochia. I have not time to point out how this may be best attained, neither is it necessary, as you have already heard all that can be said on the subject as to isolation, ventilation, and the like. No method, however, has been pointed out, or even alluded to, in the course of the discussion by which the septic poison could be got rid of should it have attached itself in any way to the body or dress of the accoucheur or nurse. We have more than one substance—one in particular—that will not tolerate the presence of putrid animal matter or septic poison; this drug is iodine, which as soon as it is brought into contact with septic matter, is converted into two harmless substances. Let any medical practitioner who has been in attendance on any case, whether a parturient female or any other, where there happens to be putrid emanation, wash his hands in water into which he has poured tincture of iodine, and I will answer for it he has no septic matter under his finger-nails. Again, if he fancies that his clothes, hair, and skin are saturated with it, let him go into the watercloset (I mention that as the smallest room in the house), place a few scales of iodine on a plate and put a spirit-lamp under it, and he will soon find himself surrounded by a violet vapour which will fall upon him in a shower of minute scales, from which he has only to protect his eyes. If he then carries with him any of the puerperal poison, my whole theory of the disease must be wrong. One thing I can assert, that in my own practice I have never had a case of fatal puerperal septicæmia since I have used iodine as an antiseptic, now more than twenty years ago. Iodine is equally efficacious in warding off septicæmia in other surgical diseases. I have injected solutions of septic poison under the skin of guinea-pigs, and produced death by septicæmia; I have also injected some of the same solutions, into which I had dropped a few drops of the tincture of iodine, without producing any ill effects. It is needless to observe that the prevention and the cure of this disease go hand-in-hand together. Should any septic poison be present in the puerperal woman, wash her out again and again with solution of iodine until the solution comes back the same colour as it was thrown up. The temperature of the patient will probably be 103° or 104°, and it will go down in a very short time to 98°. This I have witnessed since the present discussion began. The fifth question is as to bacteria—a delusion and a snare! It is possible that the septic poison may be conveyed by them or by any other substance floating in the air that is called harmless; that is all the harm they can do, as I take it. They live on this putrid matter as mites and maggots do on cheese, or vibrios on decayed potatoes during an epidemic of potato disease. In fact, I am inclined to think that they are present for the purpose of removing the poison, not generating it.

DR. PLAYFAIR.—If there is one fact to be gathered from this discussion, I think it is how remarkably little reliable knowledge we have about the subject on which we are talking. It seems to me that that is a lesson really of the greatest importance, because I cannot but fancy that a great part of the almost unmistakable confusion that surrounds the whole matter has arisen from the non-recognition of that fact, from the circumstance that, systematically, writers upon the subject have thought it necessary to give a complete and fully rounded history of puerperal fever, without recognising, as I hope they will do after this discussion, that we are only at the threshold of the inquiry, and that we have to build up all our knowledge by unprejudiced and patient clinical investigation. After saying this, I shall not err in the same way by talking too dogmatically in the few observations I have to make, and I will confine myself as much as possible to one question only, which Mr. Wells has brought before us, and which has been talked a great deal of to-night—that is, the relation of the specific zymotic diseases to the so-called puerperal fever—a relation which, to my mind, is, in spite of what has been said about it, one of the most obscure subjects and most difficult to reconcile with theory (and which cannot be got rid of by simply denying it) of any question connected with puerperal fever. In the first place, my belief about puerperal fever is very much what I understand to be that of several other speakers. I do not believe that there is any specific condition justifying the name of puerperal fever, nor do I believe that there is any special miasm arising from the puerperal patient capable of being conveyed to another patient; nor do I think that there is any evidence whatever to show that there has been an epidemic of puerperal fever in the strict sense of that word, although we all know how fatally endemic it has been in our large lying-in hospitals. In the second place, I believe that the theory which considers so-called puerperal fever to be practically the same disease as surgical septicæmia or pyæmia, or whatever we choose to call it, is the one which is most consonant with the facts of the case, that it arises from the contact of septic matter with lesions of continuity in the generative tracks such as exist in every parturient woman, that there are channels of diffusion over the lymphatics or possibly the veins, and that there are after that, just as there are in surgical pyæmia, general and local results of great consequence, rendered in the puerperal patient particularly intense and virulent on account of the particular condition existing after delivery, which was so graphically described at the first meeting by Dr. Richardson. But, Sir, the moment that that theory is stated I think a great number of difficulties and objections naturally present themselves, and amongst these I know none more difficult to resolve than that connected with zymotic disease. It has long been a recognised axiom amongst British obstetricians of the highest eminence, and I think I may venture to include Dr. Farre amongst them after what has fallen from him today, that a puerperal patient to whom the poison of some specific zymotic disease such as scarlet fever is brought, may be attacked with an intense form of the disease which does not show the specific characters of the disease that produced the contagion, and which is practically undistinguishable from the ordinary puerperal fever. I know that that view has been strongly controverted. It has been controverted by Dr. Savage in his somewhat caustic remarks. It was controverted at the last meeting by my friend Dr.

Brunton, who brought forward a great many practical facts of great value, as all the facts that he brings before us are; but I think that Dr. Brunton fell into the common error of arguing from negative observations. I believe that no number of negative observations can outweigh even one single positive fact carefully observed. Dr. Brunton's argument reminds me of those fortunate gentlemen that I occasionally hear of from patients who tell me "Dr. So-and-so has attended a thousand, or fifteen hundred, or two thousand cases of labour, and has never lost a patient." Now, I do not doubt the fact, and I congratulate the gentleman on his good fortune; but I must say that that fact does not, to my mind, vitiate the returns of the Registrar-General, or make me disbelieve the puerperal mortality throughout the whole of Great Britain and Ireland. So I think the facts in regard to these zymotic diseases are really beyond question. There is no one of the diseases about which strong evidence could not be brought forward. With regard to erysipelas the fact is scarcely questioned at all. We all know how erysipelas is interchangeable in lying-in hospitals with puerperal fever; we had, as you will remember, at King's College Hospital, frequent opportunities of observing that circumstance at the time that we had a lying-in ward there. Then, with regard to scarlet fever, about which Dr. Savage has particularly spoken, I need only refer to Dr. Braxton Hicks's most valuable paper. There are in that paper no less than seventeen examples, if I remember rightly, of women who had a disease which presented no symptoms of scarlet fever, and which was clearly due to the contagion of scarlet fever. We all know that there is not perhaps in the room a more careful observer than Dr. Hicks, and any man who can read that paper over without a preconceived judgment, and who does not agree with it, has a mind which I believe to be not open to conviction. Then there is diphtheria: we do not see so many cases of diphtheria, so that we cannot judge of it, but I may remind you that the most bran new theory of puerperal fever, that of Dr. Martin (?) is that puerperal fever and diphtheria are the same thing. I saw within the last few months a case remarkably illustrative of the influence of diphtheria in producing a disease which I was unable to distinguish from puerperal septicæmia. A newly married couple at Notting-hill had gone into a new house shortly before the confinement of the lady. The house was in a most unhygienic condition: an untrapped drain opening into the bedroom, an untrapped pipe from the drain, and a gully under the window giving off offensive smells. The patient had an attack of intense septicæmia, from which she barely recovered with her life, and the husband at the same time was laid up with a well-marked acute attack of diphtheria, the patient presented no symptoms of diphtheria, and the husband nearly dying. Who could rationally believe that those two diseases were produced by the same septic poison? I do not think there could be any doubt about it. The arguments on the other hand are unquestionably of considerable force. There is one that Dr. Savage dwelt upon—namely, that patients have these diseases in the puerperal state typically developed and running a favourable course. I am well aware of that; there are many examples of that kind on record, and that is one of the great puzzles which I hope time will explain to us, but which we cannot explain satisfactorily now. My own idea about that is—and I merely suggest it as an idea, further clinical investigation of the matter may prove it to be correct or not,—that in the one case possibly the contagious poison was brought immediately into contact with solutions of continuity in the generative track, and therefore produced an intense form of septicæmia, and in the other case the poison may have been absorbed by the more ordinary channels. I think that is a sufficiently reasonable hypothesis, but one which of course we cannot prove. Then there is another argument, also of some consequence—that is to say, that if puerperal fever by pyæmia, and if the poison of zymotic diseases, can produce a condition which is not to be distinguished from pyæmia under certain circumstances, should it not be the case that, after surgical operations, these zymotic poisons should act in the same way? The whole subject of surgical pyæmia, especially the contagious qualities of it, has been so little worked at that I do not think any surgeons would be justified in saying that zymotic poisons would not act in that way. I should like to know what Mr. Wells would say upon that point; and I hope that when he comes to his reply he will be able to spare a word or two with regard to it. But knowing as I do the great care that Mr. Wells pays to his ovariotomy cases, I should be surprised to learn that he would be happy if he heard that some one was assisting him in ovariotomy who had been just handling either a scarlet fever or a diphtheritic case, whatever views he might form as to septicæmia. I have but a minute or two to refer to that burning question—the conduct of the practitioner in cases of this kind, which is one of the most important questions connected with this subject. It is practically impossible, whatever we may think, to give up attending together zymotic disease and fever; nor, indeed, do I think that it is at all necessary. I am quite at one with what Dr. Matthews Duncan has said in the letter that has been read here—that if proper antiseptic precautions are taken any risk from this source might be eliminated, whether we use iodine or any other disinfectants that we like. I have no doubt that danger from this source might be obviated; but at the same time I think it is quite consistent with common sense that, instead of blindly shutting our eyes to facts, however unpalatable these facts may be—and no one considers them more unpalatable than I do,—we should look them fully in the face. I believe the risk is not from the facts themselves so much as from ignoring the facts and refusing to take the proper precautions which these facts would naturally suggest.

Dr. TILT.—I am in the unfortunate position of a man who, having put down a few notes, finds himself forestalled by the observations of those who have spoken before him. I rise also under a feeling of some diffidence, inasmuch as I am afraid that I come within the malediction of the last speaker as a man not open to conviction. On the first night of the discussion Dr. Braxton Hicks attributed puerperal fever to zymotic influence in three-fourths of his cases. I was most interested with his paper; it certainly is a most valuable one; but then I found that he put down as cases of puerperal fever, owing to scarlet fever, all those cases that he could trace as having been brought in any how in connexion with scarlet fever; and whereas the paper contains twenty cases in which puerperal fever was said to have been caused by scarlet fever in which there was a rash, which we should all admit, there were fifteen cases in which there was no rash. That seems to me a very large proportion of exceptional cases, and I should say that in all probability many of those cases were cases of puerperal fever arising from other causes, certainly not from zymotic influence. If the zymotic influence is to have such an extraordinary effect in the production of puerperal fever, scarcely a puerperal woman could escape in the densely populated parts of a metropolis like London, where zymotic influences—call them scarlet fever, measles, typhoid fever, or anything else—are crossing and recrossing themselves with a frequency with which we medical men are fully acquainted. I am not alone in opposing this, which I call an extravagant view of the power of zymotic influence in the production of puerperal fever, for Dr. Robertson of Glasgow, who is at the head of a maternity hospital, immediately after the discussion wrote to say that he did not at all participate in the opinion expressed. Several gentlemen who spoke at the last meeting controverted the opinion, and several general practitioners from the country protested against it; so that I think, allowing full power to zymotic influences in the aggravation or production of puerperal fever, the theory was pushed a great deal too far on the first night of this discussion. With regard to the germ theory of puerperal fever I will say just two words. I think the Pathological Society has been kind enough to settle the question for us up to the present time. With reference to bacteria as a post-mortem appearance, it is quite an exceptional case. While Heiberg, at Christiania, was relating, in an interesting paper, that he had found an enormous quantity of bacteria in the lymphatics of those who died during an epidemic of puerperal fever, other practitioners in Paris were making similar minute microscopic examinations in various hospitals, and found no trace of bacteria. It is one of those exceptional facts that you meet with in all puerperal epidemics. Sometimes one condition will be found and sometimes another: sometimes pus in the veins, and in most patients; sometimes pus in the lymphatics, and in most patients; sometimes a brown sanious fluid in the

lymphatics, similar to what is found in a wound. And I think, if too much importance has been attached to zymotic influence as a cause of puerperal fever, too little has been attached in this discussion to what I should call the autogenesis of puerperal fever, until it was so strongly and ably advocated by Dr. Wynn Williams. I think if a woman is sometimes poisoned by others, she most frequently poisons herself, and I do not see how you can find a better arrangement for poisoning a human body than you would find in the womb if once you admit that the womb contains a fetid fluid. You have a large bag, a spongy bag, partly bruised, sometimes torn; you have lymphatics, abundant lymphatics, enlarged by the gravid process—you have lymphatics whose duty it is to absorb more speedily than at any other time—they are bent upon absorption; if you have a putrid fluid I was going to say it must be absorbed, and if it is absorbed it goes into the lymphatics, and if it goes into the lymphatics we must admit now that it goes into the peritoneum, because it is clearly made out that the lymphatics open into the peritoneum. Here then you have not only the lymphatics, but you have the peritoneum liable to be inflamed, and inflamed early, from the fourth or the sixth day: that is what has been observed. Peritonitis has been grouped with cellulitis and other things as sequelæ, but it ought to be considered as something more than that; or if it is a sequela at all, it is exceedingly near the beginning of the disease, and is quite sufficient to produce fever. I have shown the ichor of the fetid lochia passing from the lymphatics into the blood, blood which is in a peculiar state. Then this poison may pass into the lymphatics without inflaming them, as other poisons do—syphilitic poisons do so. There are numerous cases in which a woman has died of puerperal fever in whom nothing has been found but a sanious brown fetid fluid, similar to what is found in the womb. In other cases they may be of course inflamed. With regard to zymotic influence, no practitioner can deny its importance, and it acts in this way. We know that all zymotic diseases—take scarlatina, for instance—cause the secretions of the human body to tend towards decomposition. When a puerperal woman is submitted to the influence of scarlet fever, scarlet fever renders fetid secretions which would not otherwise be so; so, if they are already rendered fetid by a portion of placenta or blood-clot or membrane of the womb, it renders them doubly fetid, it renders the poison more virulent, and that sufficiently explains the importance of the case. Now, after the practical applications of the theory that Dr. Wynn Williams and myself more particularly advocate, it seems to me that, talking of sporadic cases of puerperal fever, the prevention of puerperal fever will depend to a very great extent upon the belief that a doctor may have in the autogenesis of puerperal fever. If medical men will be on the look out for fetid lochia, I believe they will find them a great deal more frequently than they do. I believe that medical men in this room will bear me out that they have not unfrequently been struck with the fact that some medical men, and, still more, some nurses, are not gifted with the sense of smell. When we are ushered into a room to consult about a puerperal case, we are often struck with the offensiveness of the atmosphere, which has not struck them. Then it strikes me that, if anything seems wrong, medical men should not trust to the testimony of the nurse, as they too often do, and as I myself have too often done; we should examine and ascertain with our own fingers whether the lochia be fetid or not. If they are, I think we ought not to be contented with uterine injections, but ought to resort to intra-uterine injections. I was talking a few weeks ago to Prof. Stoltz, formerly of Strasburg, whom I met at the President's house, and he was saying that for fourteen years he had been in the habit of making intra-uterine injections when the lochia were putrid, and with the best results. There is concurrent testimony in favour of their value, not only amongst ourselves in this country, but in foreign countries; and not only that, there are many instances of the sudden utility of antiseptic intra-uterine injections—I mean the sudden abatement of the worst symptoms of puerperal fever when the womb was washed out twice a day with disinfecting fluid. I know that there are objections made to intra-uterine injections. An interesting pamphlet, which may have been sent to you as well as to me, has been published by an American doctor in Pennsylvania, who states that these injections are unnecessary because no fetid lochia can occur. He says if you let the patient use the usual utensil, and let it be emptied four times a day, that will be sufficient to prevent fetid lochia. That is an interesting fact which would require to be confirmed by our own experience. Then there are two more important objections. One is that the nozzle of the instrument that we should use would be itself a medium of infection. Of course if it were carelessly used and improperly cleaned, one would understand it; but we all use powerful means of disinfection. If the nozzle were steeped in a strong solution I cannot understand how that objection would hold ground. The assertion is contrary to our European experience. Then there is another objection—the fear that the fluid injected should pass through the Fallopian tubes into the peritoneum. I can only say that strong alcoholic solutions of carbolic acid and of tincture of iodine have been during the past few years injected hundreds of times in the Paris hospitals, and I ascertained the other day from a friend of mine that they did not know of any case in which that had occurred.

Dr. BRAXTON HICKS.—I wish to say that my paper has been misinterpreted. My paper was a communication with regard to cases of puerperal disease, not specially stating any particular point, but taking all the surroundings of the patients, and out of those eighty-nine cases that I mentioned I found that nearly half were associated with scarlet fever. Some of them undoubtedly are associated with scarlatina. Erysipelas, diphtheria, and mental emotions did the same thing. I stated that erysipelas in lying-in hospitals was most common, perhaps more common than scarlatina. I left it as a clinical point not yet cleared up to explain why and how this came about. That it is associated with the production of what we are accustomed to call puerperal fever I think there can be no doubt.

Reviews and Notices of Books.

A Manual of Instructions for the Guidance of Army Surgeons in Testing the Range and Quality of Vision of Recruits and in distinguishing the Cause of Defective Vision in Soldiers. By Surgeon-General T. LONGMORE, C.B.—This is by no means a mere reprint of the useful little ophthalmic manual published some years ago by Prof. Longmore, and which, for the small sum of one shilling and sixpence, supplied the medical officers of the army with a large amount of information in respect of the errors of refraction of the eye, and the means of discovering them. The present manual is just double the size of the former and one-third cheaper, and will be found very useful, not only by army medical officers, but by all those who have to test the vision of such bodies of men as the police, railway guards, engineers, and the like. It must be understood that the work deals only with the diagnosis, and not with the treatment of any of these affections, except incidentally, by showing the mode of recognising and correcting some of the more important. The various methods of detecting assumed blindness, or amblyopia, are fully given. Altogether a very unpretending and a very serviceable little treatise.

Commentary on the British Pharmacopœia. By WALTER G. SMITH, M.D. Dublin. London: Smith, Elder, and Co.—An explanatory commentary, without reprinting the text of the British Pharmacopœia, is a very reasonable way of endeavouring to reduce the bulk to which our books on Materia Medica have grown, and the curtailment of the natural history of animal and vegetable substances, for the purpose of more fully discussing the characters, tests, and modes of detecting adulterations in the drugs in daily use, is a decided gain. "Under each of the principal metals a pedigree or genealogical table of its preparations is given, which exhibits their mutual relations at a glance," and must most materially aid the memory of the student. On the whole, considerable care is displayed in the preparation of this work, both with a view to include in its contents the

most recent researches on drugs and to attain succinctness without baldness.

S. W. Silver and Co.'s Pocket Doctor for the Traveller and Colonist. By HARRY LEACH, M.R.C.P., Medical Officer of Health for the Port of London, late Senior Medical Officer to the *Dreadnought* Seamen's Hospital.—Mr. Leach's aptitude for giving directions to the seafaring class has long been recognised by the Board of Trade. It is not wonderful therefore that Messrs. Silver and Co. should have retained him to write a book of medical instructions for colonists and travellers. Such a work was very much needed. It is, indeed, surprising that so few such exist, considering the number and extent of our colonies. What the colonist wants are plain, practical, short accounts of disease and treatment. And with these he is now well supplied in this little work.

The Chemistry of Light and Photography in its application to Art, Science, and Industry. By Dr. HERMANN VOGEL. London: Henry S. King and Co.—This book, by Dr. Hermann Vogel, follows a different line from most of the works on the subject, in being not so much a manual for workers as a descriptive narrative of the origin of a very fascinating science and the progress of its various branches up to the latest date. It is a popular view of photography and the chemistry of light, showing their important bearing on science, art, and industry. There is some occasional obscurity in the text, arising either from an inaccurate knowledge of chemistry or defective translation. The photographs and illustrations that embellish the work are good, and sufficiently explain the text, and the chapters are clearly and comprehensively written, so that the beginner cannot fail to understand them, whilst the advanced amateur and the professional photographer will undoubtedly derive much benefit from their perusal.

Calisthenics and Drilling simplified for Schools and Families. By D. CUNNINGHAM. London: Houghton and Co., Paternoster-row.—The object of this little book is a very good one—viz., to popularise and simplify various physical exercises. Physical education, of girls especially, is too often inadequately provided for, and the more general introduction of drills and exercises into schools would tend to promote the health, develop the muscles, and improve the figure and bearing of girls and boys, besides affording a pleasant relief to the mental training to which they are subjected. One of the methods adopted by the author for making the drilling lessons agreeable and exhilarating is the introduction of music. The book is very cheap considering that it is profusely illustrated; and, although we are bound to confess that some of the woodcuts are stiff and inartistic, they serve to indicate, with the numerous diagrams, how the exercises may be varied and carried out.

Clinical Lectures on Diseases peculiar to Women. By LOMBE ATTHILL, M.D. Dublin: Fannin and Co.—This work we have on former occasions noticed favourably. Originally published four years ago, it has already reached a third edition. The present one contains two new chapters on uterine therapeutics, in which is briefly but clearly given the method of using the most important local applications employed in the treatment of uterine diseases; these will prove a great addition to the value of the book. The work has undergone thorough revision, and has been brought to the level of the most recent advances in gynæcology.

The Monthly Microscopical Journal. No. LXXVIII. June 1, 1875. Edited by Dr. LAWSON. London: Hardwicke.—This part, being the index number to the thirteenth volume, contains three original articles only: one on Bog-Mosses, a continuation of his previous investigations, by Dr. Braithwaite; a second, on the Angle of Aperture in relation to Surface Markings and Accurate Vision, by Mr. Slack; and a third, on Measurements of the Möller Probe-plate, by Edwards Smith. Neither of these would, in abstract, interest our readers.

POLICE-CELLS OF THE METROPOLIS.

SINCE our report last week we have received additional information with respect to the cell-accommodation at the different police stations of the metropolis. Our Commissioners, it will be remembered, visited on the night of the 1st of June five of the chief stations, east and west, and found sixteen prisoners and forty-one cells. We have now received a return of the hundred and thirty-nine police stations situated in the metropolitan district, giving the exact number of cells at each station, and the number of prisoners in charge on the night of the 1st of June between the hours of 5 P.M. and 10 A.M.

Return of the number of Cells and the number of Prisoners confined therein on June 1st from 5 P.M. to 10 A.M.

Division.	No. of Stations.	No. of Cells.	Prisoners.
A. Whitehall	2	7	None.
B. Westminster ...	3	11	5
C. St. James	2	12	5
D. Marylebone ...	2	18	10
E. Holborn	3	34	15
G. Finsbury	2	14	14
H. Whitechapel ...	2	12	13
K. Stepney	13	49	25
L. Lambeth	2	11	12
M. Southwark ...	2	11	7
N. Islington	8	36	10
P. Camberwell ...	13	39	12
R. Greenwich ...	13	40	12
S. Hampstead ...	9	28	14
T. Kensington ...	16	45	20
V. Wandsworth ...	8	26	4
W. Clapham	10	31	4
X. Paddington ...	13	39	15
Y. Highgate	13	47	14
Thames	3	4	2
	139	514	213

It will be seen from the above list that some districts are more crowded than others. Thus Finsbury, Whitechapel, and Lambeth had all their cells full; whilst Greenwich, Paddington, Clapham, and Highgate had but few prisoners compared with the number of cells at their disposal. If we take individual stations the same fact will be noticed. At sixty-seven police-stations there were no prisoners at all. At fifty-four stations the number of cells was in excess of the prisoners confined; at eight stations there was one prisoner to each cell; and at twelve stations the number of prisoners was in excess of the cells. The two most crowded stations were Albany-street, with ten prisoners and five cells, and Notting-hill, with eight prisoners and four cells. In no case did the excess exceed twice the number of cells provided. The number of prisoners confined at a given station varies considerably day by day, being chiefly determined by local causes. As each division has more than one station, it is easy to pass prisoners on to a less crowded station if an unusual pressure occurs. In the case of Albany-street, for instance, in that division (Hampstead) there are nine stations with twenty-eight cells. On the night in question ten prisoners were locked up in the five cells of Albany-street, whilst only four were in the other twenty-two cells in the district. The inspectors informed us it was always arranged to pass on prisoners if a station were filled up; but we should like to see an official announcement on this point, and also to find a limit fixed to the number of inmates that may possibly be put in one cell. We think that two is quite an outside number. We hope that when Mr. Sheridan puts his question respecting the condition of the police-cells, Mr. Cross will make a definite statement on this point. In all other particulars we are fully satisfied with all we have seen and heard of the London police-cells.

THE LANCET.

LONDON: SATURDAY, JUNE 12, 1875.

THE General Medical Council will assemble next Thursday, at two o'clock, under the new presidency of Dr. ACLAND, and in the new premises. It is true that there has already been one meeting of the Council in these premises, but they were in a very unprepared state, whereas now they are thoroughly and comfortably furnished. Excepting the gallery for the press, which we should expect the reporters to be decidedly dissatisfied with, the building is very convenient for the purposes of the Council. As the members range through the various apartments, or repose in easy chairs whilst running their eye over their still easier accounts, which have a knack of showing an ever-increasing balance at the banker's—the power to buy land having not yet, as far as we are aware, been exercised, and the Council having a remarkable power of not spending any money except over its own particular purposes,—we can fancy them congratulating themselves on being in a flourishing and prosperous condition, and thinking that all is as well with the profession as it is with the General Medical Council, and that little more devolves upon them than to spend ten days pleasantly, at this height of the London season, in mutual congratulations.

It will be well, however, for the Council to remember that it really meets under very peculiar and, we must add, discreditable circumstances. We cannot pretend to forecast under what shape the question of Conjoint Boards will appear. But under one form or another—either in the shape of a subject of communication from Government, or in the shape of a communication from the English bodies which have hitherto failed in trying to construct a feasible and acceptable Conjoint Scheme—the subject must turn up. And it cannot this year be creditably dismissed without very serious discussion as to what is to be done with it in the future. Lord SANDON has lately inferred in the House of Commons, from the fact of enabling Bills having recently been, or now being, before the House, that the bodies are still trying to accomplish the consolidation of the licensing bodies, and may possibly succeed. If no progress is reported in this matter from Ireland or Scotland, and if, as seems probable, difficulties not to be solved by the College of Surgeons getting an enabling Act are reported in the way of the English scheme coming into force, it will be for the Council to consider whether it should delude the Government or the public by holding out any longer prospects of being able to do that which hitherto and for so many years it has so miserably failed to do. For five or six years now this topic has occupied the time of the Council, and it ought either to be advanced or to be dismissed, so that the Government and the profession may know what to do. The Council has all but unanimously, and repeatedly, condemned the system of half-qualifications and of competing licensing bodies. Government has condemned it. All the organs of the profession have condemned it. And if the Council is powerless to remedy it, it is high time that it should say so. It has been trying long enough. It has been trusted long enough. If it has failed, it has failed from the intrinsic difficulty of the duty or the intrinsic unfitness of the Council to perform it. A body so complicated and so sensitive in its constitution, without requisite powers, is simply incapable of compelling the bodies to do that which they think contrary to their interests and their individual importance. The independent members should see this, and call upon the Council to announce the termination of its efforts to bring about Conjoint Boards.

Next in importance to this question in the discussions of the Council must rank the Reports of the Visitors of Examinations. Eleven or twelve probably of the most important examining bodies of the country have been examined during the last year, including the English Universities, the University of Edinburgh, the Royal College of Surgeons of England, the Royal College of Physicians of London, the Royal College of Surgeons of Edinburgh, the Royal College of Physicians of Edinburgh, the King and Queen's College of Physicians in Ireland, &c. The liveliness of this subject is not likely to be abated by the answers of the bodies that were criticised last year to the strictures of the visitors. Some of these bodies may this year have the sweet revenge of criticising their critics, or at least of seeing some sister bodies in the same condemnation. But it must not be forgotten that at all these visitations some visitor has been present unconnected with the Council and with the examining body, and of established competence as a judge of examinations.

Questions of less range but of scarcely less interest than the above may be expected to be decided. Amongst these, one of a judicial character stands over from last year. It will be remembered that last year a letter from Dr. MACKERN was brought before the Council charging a registered medical practitioner with lending his name to an unregistered person. The question was remitted to the English Branch Council; and their report upon it, with perhaps the opinion of the lawyer of the Council, may be expected. There is reason to think that there are registered practitioners who thus lend their names and titles. And it would be gratifying to find that the Council had at once the will and the power to rebuke them.

THE letter which we published last week on the Primary Examination for the Fellowship of the College of Surgeons was of such importance that we feel it incumbent to refer to it specially, the more so because that in most cases this examination is the only portal to the best surgical appointments in England. It differed from most letters with which we are favoured in not attacking the high class character of the examination, but what our correspondent terms "its extreme uncertainty," and this makes us the more anxious that his suggestions should have due consideration. The main point on which the chief arguments of the letter were based is the alleged fact that very good men fail in greater proportion at this examination than at others very similar in severity—e.g., at the 1st M.B. of the University of London. We fear that there is reason for this statement, as we constantly hear of scholars and medalists, assistant

demonstrators and prosectors — the picked men of the schools,—being referred. The system of marking and the small number of the questions are evidently indefensible, and we hope that alterations therein, not merely for this examination, but for some of the other examinations of the College, will form a part of the recommendations of the visitors deputed by the General Medical Council, who attended the examinations for the membership a few weeks ago. We look for their report with much interest.

Another point of great importance incidentally mentioned by our correspondent is the separation of the examiners in different subjects. It may be possible for a single examiner to test a candidate for the membership sufficiently in all the subjects; but it is beyond dispute that no one person can do justice to such a wide range of subjects with so high a standard as the First Fellowship Examination now demands, especially when we take into consideration that equal proficiency in surgical and pathological knowledge is necessary for him to properly conduct the final examination. The examiners for the fellowship should be divided into two groups—viz., those for the Primary and those for the Pass; and this would ensure greater consistency, without entailing a much greater increase of work on each set. Were this subdivision carried further, and the examiners appointed for their eminence in each branch, a still greater advantage would result. The best anatomists would not then be expected to examine in pathology, and *vice versâ*. Distinguished men would not feel themselves compelled, as in many well-known instances, to decline the examinerships, because they felt themselves unable to test fairly in so many subjects — a most conscientious and praiseworthy proceeding on their part, for in the present day no one can keep himself abreast of the advancing tide of knowledge in more than one or two subjects. It may be objected that it will be impossible to find suitable men who would give up so much of their time as this change would necessitate. We believe that this is quite fallacious; and, indeed, we doubt whether much more time would be required if the written part of the examination were made sufficiently comprehensive. Candidates could then be readily and *safely* classified. Those who had done very badly need not be admitted to a *viva voce*, and an optional time could be taken with the remainder, as the good men would occupy but little.

About forty students are examined at every 1st M.B. examination; and four examiners in three days look over the answers to two papers in Anatomy, each containing five or six questions, and one in Physiology, containing four or five questions, besides conducting practical examinations in both subjects. The number of candidates at the two Primary Fellowship Examinations averages about ninety; and we therefore see no reason why these should not be carried out quite as efficiently and almost as rapidly as at present, by a small number of examiners selected from the existing court, especially as then those gentlemen would be at leisure during the rest of the week, instead of having it occupied by the duties of the Final Examination. We speak with less hesitation on this point because many members of the Court of Examiners have filled similar offices at the University, and under their *régime* there these complaints were not heard, thus proving that it is the system which is in fault. If such alterations were made, candidates might write one paper in the morning and another in the afternoon, instead of devoting half the day to the payment of fees, which could as well be done at any time between the receipt of the notice of the candidate's intention to present himself and the closing of the office on the day previous to the examination. Such changes would, of course, throw a little more work on the permanent staff of the College; but this must be quite a secondary consideration to the necessity of improving the examination, and so obtaining a juster estimate of the capacities and knowledge of the candidates.

THE position of the nervous centre from which proceed the nerves supplying the vessels of the body generally, and which must necessarily exert a very powerful influence over the functional activity of all the glandular organs, and, in fact, over the nutrition of the whole body, has been the subject of much recent investigation. OWSJANNIKOW has shown that this vaso-motor, or, as it is sometimes termed, pressorial, centre is situated in the medulla oblongata, and that in the rabbit its upper limit is about 1—2 mm. distant from the corpora quadrigemina, whilst its lower limit is about 4—5 mm. above the calamus scriptorius. When this region is irritated the arteries throughout the body contract, whilst when it is destroyed they remain persistently dilated. So long as it and the communications remain intact, irritation of any sensory nerve causes increase of blood-pressure by contraction of the arteries, which is effected by reflex action; whilst, on the contrary, when destroyed, but little effect of this kind can be produced. Even when destroyed, however, direct irritation of the spinal cord as low down as the eleventh dorsal vertebra will still excite extensive local vascular contraction, with increase of pressure. This, however, furnishes no evidence of the existence of a centre, but only shows that the fibres proceeding from the centre descend through the cord. GOLTZ has indeed shown, in a mode that admits little opening for question, that a vaso-motor centre for the vessels of the generative organs exists at the lower part of the spinal cord. Still, the general impression is that the principal vaso-motor centre occupies the region above stated, on the ground that, if a section be made above the medulla oblongata, irritation of the sensory nerves is capable of greatly increasing the blood-pressure—in fact, to as great an extent as in the uninjured animal; whilst, if the section be made below the medulla, no irritation of sensory nerves will produce this effect.

Dr. MORITZ NÜSSBAUM, at PFLÜGER'S suggestion and at the laboratory of this physiologist at Bonn, has undertaken a series of investigations to determine whether the chief vaso-motor centre does or does not extend down the spinal cord. His experiments seem to have been made upon the frog, and the web of the foot was the part in which the variations in size of the vessels were measured. Dr. NÜSSBAUM observed that if the spinal cord were divided opposite the atlas with great care and with the loss of very little blood, which may be accomplished by the application of a galvano-caustic wire, the first effect is great constriction of the vessels throughout the body, caused by irritation of

the vaso-motor nerves, giving place in the course of about five minutes to great dilatation, consequent on the paralysis, which persists for the space of about two hours. He further noticed that the usual rhythmical contractions of the arteries reappeared, presenting the same characters as those that have been described by SCHIFF, SAVIOTTI, REIGEL, and others. The occurrence of these contractions he rightly regarded as furnishing strong evidence that a centre exists in the spinal cord from which pulses of nervous force emanate at tolerably regular intervals. NÜSSBAUM further found, contrary to the observations of his predecessors, who, he thinks, have been too hasty in drawing their conclusions, that, when the animal has thoroughly recovered from the shock of the operation, irritation of sensory nerves, whether by mechanical, chemical, or electrical stimuli, induced contraction of the arterial walls in extensive districts of the body, though, if the whole nervous system were removed, no such contraction could be produced during the twenty-four hours that the animal usually lived, the arteries constantly remaining widely dilated. He maintains that no mistake of observation could exist upon the point, the reflectorially excited contraction occurring between five and fifteen seconds after the application of the stimulus to the sensory nerve, and reducing the calibre of the vessels to one-third or one-fourth of their normal size; whilst, when the cord was entirely removed, no action whatever was discoverable. The experiment answered even when the cord was divided at the lower part of the neck below the origin of the brachial plexus. It is thus, he maintains, certain that the spinal cord, like the medulla oblongata, is an independent vaso-motor centre, and that, consequently, the medulla oblongata only contains the upper extremity of this centre. However true this may be for the frog—in which the special functions that in higher animals are localised in the brain are so much more generalised,—it must be remembered that GOLTZ's experiments on the rabbit, and those of DITTMAR, LUDWIG, and THIERY on the dog, were very precise.

Dr. NÜSSBAUM adds a note of separate interest, to the effect that he has learnt from incidental observations that vaso-motor nerve-fibres run in the sciatic nerve of the frog, though DOGIEL had come to the conclusion there were none in the dog. He also discusses the question of the existence of the active dilatation of vessels—such active dilatation as is seen in the vessels of the submaxillary gland on irritating the chorda tympani, and in the penis on irritating the nervi erigentis; and suggests as a possibility that such cases may be explained by the irritation having for its consequence the contraction of the arterial system generally, so that the pressure is everywhere increased, but the vessels of the gland and penis respectively, being less able to resist, yield to it, and thus an apparent dilatation is effected.

SPEAKERS have been divided into those who have something to say and those who wish to say something; and the War Minister, in his reply to the deputation from the Royal College of Surgeons of Ireland, went very far to justify the addition of another variety to the division—namely, those whose desire is to say nothing. At any rate, if this were his object, he succeeded very fairly, for, without pledging himself to anything definite, he skilfully managed to indicate that the deputations differed among themselves in the demands they put forward. Mr. GATHORNE HARDY, having already declared, in his place in Parliament, that the subject of the Army Medical Service was receiving his consideration, had either determined not to have his hand forced prematurely, or, what is equally if not more probable, he declared nothing because he had nothing at present to declare. Still, he claims to be brimful of good intentions; and whilst various suggestions are being hammered out on the War Office anvil, we cannot do better than subject some of the points adverted to in his speech to a little outside consideration and criticism. It should not, of course, be forgotten that the present state of the Army Medical Service is in no way attributable to the action of the present Government, and that Mr. GATHORNE HARDY has inherited from his predecessors the very difficult task of repairing the mischief they caused.

What we have been given to understand amounts to this: The army medical officers are divided into executive and administrative. Those in the latter rank enjoy the lion's share of everything to be had, and continue longer on full pay in the enjoyment thereof, and the reward of their good luck or good work follows them, on their retirement from the service, in the shape of increased pensions. The number in the administrative rank being restricted, it follows that all the medical officers cannot expect to attain that rank; but, under existing circumstances, a very large majority are excluded from all hope of doing so. In the case of a medical officer being promoted comparatively early into the upper grades, he bars the way from that time until he has attained the age of sixty-five; and during the interval he continues in the receipt of larger pay, and has a far better chance of obtaining any honours and rewards that may be going. And what serves to render the disparity between the executive and administrative ranks still greater is this—that the administrative officer, after having enjoyed these advantages, manages to establish a claim for a distinguished service-pension in addition to the superior rate of retirement to which his rank entitles him. It seems to us a matter of common sense to suppose that, under such circumstances, the service will become discontented. If we expect men to work with zeal and efficiency they must be stimulated by hope of some kind, and to afford them any chance of promotion to the administrative ranks the period of service in those ranks must either be limited to certain terms of years, or by the ages of the individuals, or both. There are, unfortunately, no rewards for professional merit; and we think that if it were known that the Director-General had a few prizes of this kind at his disposal it would be a very good thing for the service. As to the matter of forage, the War Minister must be well aware that it has no bearing on the question to say that it was not settled with reference to medical men only. It was settled by the Royal Warrant of 1858 in reference to them unquestionably, and those who entered then and subsequently had simply to look to what they were guaranteed without reference to anyone else. We cannot see that relative rank can be practically restricted to a choice of quarters, or how Mr. HARDY's proposal is to settle the matter. As the relative rank of medical officers must vary, it is quite

probable that a man may be peremptorily told off to the occupation of quarters, inferior to those to which he is entitled, in consequence of their having been peremptorily lettered "Medical officers' qrs." Mr. HARDY was emphatic, however, on one thing—viz., that a return to the regimental system would be almost impossible; but he did not explain the anomaly how a medical officer can be "attached" to, and yet be a *bonâ fide* officer of, that regiment. However, we are promised that the outcome of the delay that has taken place is to be the devotion of Mr. HARDY's best attention to the subject of the grievances of the medical officers, and that he is sincerely anxious to leave no real grievance unredressed. The medical officers and the profession, consequently, must continue in their state of expectant attention until the result of his deliberations is made known.

Annotations.

"Ne quid nimis."

POLLUTION OF RIVERS BILL.

LAST week deputations from different parts of the kingdom waited upon Lord Salisbury, to confer with him on important points connected with the Government measure for the prevention of the pollution of rivers. The chief points touched upon were the altering certain clauses and terms so as to save litigation. It was urged that in the twelve year clause, granting certain exemptions, the burden of proof of having tried the best means of removing the evil ought to rest with the defendant. It was requested that powers should be given to the county court judges, who were to deal with these matters, to grant an *interim* injunction to abate a nuisance pending the hearing of the case—that is, if a *primâ facie* case was shown. It was pointed out that drainage into sewers as required by the Bill was very undesirable, inasmuch, as regards existing sewers, it might be unsuitable that the water taken from rivers should be returned to them direct. It was apprehended that, under the provisions of the Bill as it at present stands, canal proprietors might be made responsible for sewage matters, effluent waters charged with refuse, &c., flowing into the canals from sources over which they had no control. It was argued that before the Bill passed the clauses relating to this point should be modified, as the Government surely could never intend to enforce such an unjust provision. Lord Salisbury's answers to the deputation may, on the whole, be considered satisfactory. The suggestions advanced by the deputations will receive due attention and consideration, and the Government would put in such safeguards as they deemed advisable to make the Bill a workable measure. We are glad to see discussions raised on the various points of the Bill that are most objectionable; even, however, with the alterations proposed, the measure falls far short of what we could have wished or what we were led to expect. The Bill presses very unfairly on certain trades and individuals, whilst very little reform will be effected of the existing evils.

TEN YEARS' VACCINATION IN SCOTLAND.

THE tenth annual report on the vaccination of children in Scotland contains a summary of the results of compulsory vaccination in that part of the United Kingdom during the ten years 1864–73. Vaccination statistics have in Scotland been carefully compiled and regularly published by the Registrar-General, and afford most favourable comparison with the meagre and incomplete statistics of vaccination in England published by the Local Government Board. During the ten years above mentioned 1,149,352 children were born in Scotland, of whom 1,011,524 were successfully vaccinated. Of the remaining 137,828, no less than 97,699 died before vaccination, which is not compulsory until the expiration of six months from birth. In 5811 cases the infants were returned as insusceptible of vaccination, either from constitutional insusceptibility, from having had small-pox, or from previous vaccination. Vaccination was postponed in 8118 cases, on medical authority; and in the remaining 26,200 cases, only 2·3 per cent. of the total births, the children had removed from the district before vaccination, or were otherwise unaccounted for. It is most probable that a large proportion of these 34,318 children, who during the ten years were not vaccinated, in accordance with the Act, within the stipulated period of six months, have since been vaccinated, and a considerable number of them may have emigrated; but this figure represents the maximum number of children under ten years of age in Scotland at the end of the year 1873 who could have been unprotected from small-pox by vaccination. Dr. Robertson, in his report, suggests, however, that this small percentage of children who appear to evade vaccination might be still further reduced by the amendment of the Vaccination Act, and the reduction of the period after which vaccination shall become compulsory from six to four months. If vaccination be postponed until an infant be aged five or six months various infantile diseases are apt to be developed, which may justify a further postponement, or prevent the full success of the operation. Infants should be vaccinated, generally speaking, before they are three months old, therefore why not make vaccination compulsory at four months instead of six? This would facilitate the duties of vaccination officers, and reduce the number of cases in which removal prevents the requirements of the Act being fully carried out. The effect of vaccination upon the mortality from small-pox may be inferred from the fact that during the ten years 1855–64 75 per cent. of the deaths from this disease occurred among children under five years of age, whereas in 1874 this proportion had declined to 25 per cent. In Scotland there is very little active opposition to vaccination, but in a large proportion of cases mere procrastination leads to its being put off until a reminder be received from the registrar, which is not issued until nearly the close of the sixth month after the registration of the birth.

POST-MORTEM CERTIFICATES OF DEATH.

THE coroner for Halifax, Mr. Barstow, has administered a very severe rebuke to Mr. Ainley, the medical officer of health for the borough, for giving the ordinary form of certificate of death in the case of a child to whom he was called after death. It is to be regretted that the coroner did not see fit to give Mr. Ainley distinct warning beforehand that he intended to question his conduct. This is the least amount of consideration that might be expected from a coroner to a medical man, not to say a medical officer of health. We regret, however, to say that in the main we must admit the justice of the coroner's views. We cannot understand a medical man giving a certificate implying that he had attended a case during life, and had the means of diagnosis which such attendance implies, when in fact he had only seen it dead. Mr. Ainley in a letter defends this practice, though he admits its irregularity. He defends it on two grounds—first, that it is not worse than the conduct of coroners in many instances, who, on the slightest evidence of the cause of death being natural, pass over doubtful cases without an inquiry. The answer to this is that if

coroners act loosely, that is no reason why medical men should do so. We deny that Mr. Ainley was at all in a position to certify the true cause of death, and it is to be regretted that he, being not only a medical man, but a medical officer of health, should have given a certificate in the ordinary form. As for the argument that such an irregular practice has the sanction of long and undisturbed custom, we dispute the accuracy of the statement on which it is based. But if it be well grounded we cannot alter our opinion of the practice being thoroughly indefensible and objectionable. It is not a slight exaction of the law to require a certificate from medical men. They are well entitled to decline it, both on moral and public grounds, when it involves misleading statements.

SALVINI.

SINCE the greatest of Shakspeare's creations has ever been a source of never-failing interest to medical men in general and psychologists in particular, we think it right to state, for the information of our readers, that in Signor Salvini we have with us undoubtedly one of the most talented exponents of Hamlet that has ever trodden the boards of a London theatre. We never remember to have seen an audience so attentive, so appreciative, nor so genuinely enthusiastic as that which assembled at Drury-lane on the morning of May 31st to see the first performance by the gifted Italian of the character which, in this country at least, is considered the greatest test of an actor's power, and the performance of which demands an amount of intelligence, histrionic skill, and intimate acquaintance with stage business which is very rarely found associated in one individual. The great feature of Salvini's Hamlet, and that which distinguishes it from most other representations of the character, is the fact that in his hands the Prince of Denmark is a consummate gentleman in figure, action, and voice; and this favourite of the people stands out in bold relief as a true nobleman against the background which is formed by the incestuous King and Queen, the officious Polonius, and those spying reprobates, Rosencrantz and Guildenstern. Salvini's voice is powerful, exquisitely musical, capable of the most delicate and touching modulations, and of conveying an idea of the highest degree of frenzy, jealousy, or enthusiasm, without degenerating into hoarseness and rant. While looking at this great actor, one seems to be, in reality, transported to the platform of the castle at Elsinore; and, gazing at the figure of Salvini kneeling before the Ghost at a distance, which seems paralysed by terror mingled with respect, his body sympathising in appropriate movement with every word of the tale that falls from the grim spectre, with a face that shows its owner to be chilled to the very marrow, and wrought upon by an inward struggle almost too terrible to contemplate, one forgets the impossibility of the scene, and for the time being ghosts and the fear that they engender are no matters of speculation, but realities not admitting of a doubt. His influence over the audience was at times mesmeric, and the cheering, shouting, and waving of handkerchiefs which followed the conclusion of each act seemed to come as a genuine relief to his hearers, who in this way threw off the magic spell which had been cast over them. In the play scene Signor Salvini's action was magnificent, and his wild excitement when the King's conscience prompts him to rush from the room makes it probable that he has seen Mr. Henry Irving in the same scene. The greatest scene in the play, perhaps, was that with the Queen. His manner of comparing "the counterfeit presentments of two brothers" was masterly in the extreme; and when the Ghost appears suddenly behind the Queen's chair, a tableau was presented to the audience which must live for ever in the memory of those who saw it. In the last scene Signor Salvini showed himself a consummate master of the art of fencing, and the dexterous and courteous manner in which the exchange of foils was effected was perhaps the best piece of stage "business" which it was ever our lot to see. Then comes the murder of the King, and for a minute Hamlet's excitable nature seems fairly to boil over. And, lastly, the mode of dying, without any offensive trickery, was of a kind to stir the sympathies of his audience; and when he fondled the head of his friend Horatio, as he fell back lifeless, many a genuine sob was evoked ere the hush and sorrow for poor Hamlet changed to shouts and cheers for the actor who had such power to move. The play, to serve the purpose of the Italian company, has been sadly mangled, and many of those passages which seem to indicate more than any others the real condition of Hamlet's mind have been altogether cut out. The "wild and whirling words" which succeed the first interview with the Ghost find no place in Salvini's version, and many similar passages have been likewise removed, for Salvini's notion evidently is that Hamlet was in no degree mad, nor even eccentric. All the thoughtfulness, affection, sarcasm, and recklessness of the character remain, and these are represented by Signor Salvini in a manner which, in our experience, has certainly never been equalled.

SANITARY SCIENCE AFLOAT.

IT appears that the official reports made regarding the ventilating arrangements of H.M.S. *Devastation*, and quoted in THE LANCET of the 22nd ult., were somewhat premature. Since the arrival of the vessel at Malta one officer has been invalided, another has been on the sick list with fever of some kind, and complaints are loud as to the condition of the air between decks. It is stated by an officer writing from Malta, that the admiral, his flag captain and flag lieutenant all took away headaches after a very brief stay on board, and so her probable future during the approaching hot weather is described in nautical parlance as a "hell afloat." The same "graphic" authority, however, pertinently remarks to the effect that the ship will not be properly habitable "until a regular system of uptakes has been constructed to carry off the foul air from below." We have during the last two or three years so persistently advocated the "exhaust," as contrasted with the "plenum" principle for ironclads and monitors, if not for all vessels, that it is as well to quote, in confirmation thereof, a brief description of the *Devastation's* arrangements taken from *Naval Science* of April, 1873:—

"They (the 'up-cast' arrangements) consist of a large engine-hatchway about 12 ft. square, the ward-room screw skylight, the base and centre of the turret, and the funnel and its casing. There are also skid gratings, 2 ft. wide by 120 ft. long, along each side of the main deck, and four outlets from each stokehole. But with the exception of five small screw ventilators and the anchor bolts, all of which must always be closed in rough weather, the foul air has to find its way from the forecastle and sick bay, through doors on each side, below, past the turret, and the closets and urinals, to a small hatchway leading to the upper deck, which latter must, as we believe, receive a great deal of the wash when the sea is high. The captain's lower cabin has two cowled ventilators, which could seldom be carried under any circumstances at sea, so that this cabin is practically unprovided with any up-cast ventilation, and, according to present arrangements, will probably be found to require some additional appliances."

This quotation, taken from the best authority on scientific questions in ship construction, endorses the principle that we have always maintained, and shows that the remarks made two years ago as to the inefficiency of ventilation on board this ship are true to the letter. When will "My Lords" see the wisdom of attaching to the Construction

Department at Whitehall a medical officer, competent, when the lines of ships are being drawn, to advise as to the proper means of making our men-of-war fit to live in, as well as fit to fight?

BREATHING SPACES ROUND LONDON.

IT is very satisfactory to find that the local authorities in all parts of the metropolis are now keenly alive to the necessity of preserving intact the whole of the "breathing spaces" in and about London which have survived the "enclosing" tendencies of lords of the manor, and others similarly interested. We may briefly note three different neighbourhoods near the metropolis in which the rights of the public to these "breathing spaces" are now being contested, with fair prospect of success. In pursuance of the important decision of the Master of the Rolls last autumn, the Corporation of London has just taken another and important step towards the rescue of a large proportion of Epping Forest for the use of the people of the metropolis. Notices have been issued to all those persons who have made enclosures in the forest since 1851, to remove the fences and once more to throw open the land. It is stated that these notices relate to an area of 3150 acres, and if these be successfully recovered the effect will be to more than double the open part of the forest, which will then exceed 6000 acres, and form indeed a noble recreation ground, fitting the largest city in the world. In Plumstead parish a public inquiry was recently held by one of Her Majesty's Inclosure Commissioners respecting a scheme promoted by the Metropolitan Board of Works for the preservation of Boston Heath in that parish, which is as desirable for the use and benefit of the 80,000 persons living in or near Woolwich and Plumstead as is Hampstead-heath for the north-west of London. The scheme is of course opposed by Queen's College, Oxford, which claims the rights of lord of the manor. These rights, however, as regards Boston-heath can have little present value, as the ground is taken care of by nobody, and is a nuisance to the neighbourhood, as it is infested by so-called gipsies, in reality lawless vagrants. The third case of action taken for the preservation of open spaces which we propose to mention is the granting of an injunction by the Master of the Rolls on the 7th inst., in the case of the Wimbledon and Putney Common Conservators *v.* Dixon, the object of which is to prevent the erection of houses on land adjoining the common called Cæsar's Camp.

DRAINAGE OF LINCOLN.

THE Mayor and Corporation of the town of Lincoln had an interview on Thursday, the 3rd inst., with the President of the Local Government Board, to request that the order issued by the Board three months ago on the town to carry on its drainage works within a period of four months, be not pressed. At the time the order was issued we pointed out the disgraceful sanitary condition of the town of Lincoln, and commented severely on the neglect of the local authorities. Four years ago the Local Government Board had issued an order similar to the present one, but the sanitary authority regarded it with sublime indifference and contempt. Perhaps no further notice would have been served on them, and the matter would have been allowed to drop, if some of the more influential inhabitants, becoming alarmed at the continued high death-rate, the frequent occurrence of zymotic disease, had not strongly represented matters at head-quarters; the result being that an inspector was at once sent down to inquire into the subject, and in consequence of his report the present pressing order was at once issued. The Mayor urged that they could not make up their minds what scheme to adopt, and asked that six months more might be accorded them. They particularly wanted to see the works in action at Coventry. Had the Lincoln authorities not shown such an utter contempt of the first order issued their present request might have seemed reasonable, but when the circumstances of the case are taken into consideration the demand seems preposterous, and we hope the President of the Local Government Board will not be cajoled into yielding them one day beyond the period fixed in his last order. The present chief at Gwydyr House has on several occasions shown a disposition to enforce with firmness his demands on local authorities, and in that respect his conduct affords a strong contrast to the feeble and irresolute policy of his predecessor in office. Lincoln has for four years openly defied the express commands of Government, and if it now succeeds in postponing the day of action we shall be grievously disappointed.

MORGAGNI.

ITALY has been raising from the dead and revivifying in marble quite a host of her deceased worthies. Among these there are few more deserving of commemoration than the great physiologist and physician John Baptist Morgagni, whose statue—a *chef d'œuvre* of Salvini—was on the 27th ult. unveiled in the Palace of Studies in his native town of Forli. The occasion was one of unusual pomp, the result of many weeks' preparation, and both at the unveiling itself and at the subsequent banquet the oratory was as effective as some of Italy's ablest and most accomplished speakers could make it. Certainly Morgagni presented a fruitful theme. The anatomist who established the school of which Scarpa was but one out of many hardly less brilliant disciples; the pathologist who, after combating successfully the metaphysical dogmas of Stahl, revived and reinvigorated the Hippocratic induction; the physiologist who is claimed by Virchow and the later German school as their lineal progenitor—left small excuse to the panegyrist who fell below the mark. Like all men of his intellectual build, Morgagni was alive to the importance, and proficient in the principles, of other sciences than his own; and not the least interesting of the features of his *festa* was the exhibition of numerous autograph letters received by him from Sir Isaac Newton, Le Clerc, Boerhaave, Haller, Lancisi, Alberoni, Valsalva, and a host of other contemporary *savants*; while his excellent scholarship was attested by a characteristic correspondence between him and the great Latin lexicographer, Forcellini. His manuscripts were also displayed; and not a few of the physicians who examined them but must have shared our opinion that while Forli does her duty in perpetuating the outward presence of her great son in marble, she has yet to supplement it by a more enduring monument—that of the completion and publication of his posthumous writings, rich as they are, not only in historical interest, but in suggestions by which the science and practice of medicine may profit at this hour.

SANITARY DIFFICULTIES AT KEIGHLEY.

THE sanitary condition of Keighley is deplorable. During the four months ending May 27th the annual death-rate was equal to 42 per 1000, and the deaths included 19 fatal cases of small-pox, 11 of scarlatina, 6 of whooping-cough, and 5 of fever. A large portion of the local board district is not only unpaved, but practically undrained, and the water-supply is most defective. Many parts of the district have no water-supply at all, and the inhabitants are obliged to scramble for it where and when they can. In the village of Worth it is stated that water is being used which has midden sewage, soapsuds, and other abominations floating on the surface. It is true that a new water-supply

is being provided, but it might have been in use a year ago but for unaccountable delays. The state of things in Keighley is so bad that the only hope is that it may lead to some outside pressure being put upon the local board, who are in reality more to blame for the sanitary condition of the district than the guardians—against whom a *mandamus* has been obtained by the Local Government Board,—who are alone responsible for the neglect of vaccination. Here is a complete repetition of the Over Darwen case—a local board that, in spite of continued reports from their medical officer as to the fatal consequences of their inaction, persist in doing nothing. Looking on at a distance, the possibility of such a condition of things is a melancholy commentary upon our sanitary legislation. Surely it is time that the Local Government Board as the central sanitary authority should be invested with power to interfere in such a case as the present condition of Keighley.

PURIFICATION OF THE SUSSEX OUSE.

A MEETING was held last week at the Town Hall, Lewes, the high-constable, Mr. J. Croskey, in the chair, to consider the advisability of taking steps to purify the river Ouse, which flows through the town. Our readers will remember that last autumn Lewes was severely visited with an outbreak of enteric fever, the cause of which was traced to pollution of the town water-supply by the accidental entrance of water from the river passing up the Cockshut stream and flowing through the valve, which had been accidentally opened by some children. The catastrophe which resulted materially affected the prosperity of the town, the Assizes being removed to Brighton. The precautions already adopted by the local authorities are sufficient to prevent the recurrence of another mishap from the same cause, but there can be no doubt the health and prosperity of the town would be greatly benefited if this at present foul stream were purified. Mr. Greville Fennell, speaking on the subject, said that if the river were clean, fish would soon frequent it, and Lewes would become a favourite fishing station. We sincerely hope that such a desirable result may speedily be obtained. There is a local tradition that some six hundred years ago St. Richard of Chichester had "good luck in his fishing" from the town bridge, and sent the produce of the day's sport as a present to the neighbouring Prior of St. Pancras. We shall be pleased to record a similar day's sport when the fish have been brought back to their old quarters.

THE HOSPITAL SUNDAY FUND.

TO-MORROW is the Sunday fixed for the collection of this great Fund. We heartily wish every success to the movement, and we commend it to religious men of every creed. Even men who have no other creed must believe in the misery occasioned by a combination of sickness and poverty, and will, let us hope, help to swell the Fund by their contributions. The members of the Distribution Committee for the year are as follows:—Sir Sydney Waterlow, M.P.; Lord Ashley; Thomson Hankey, M.P.; Alderman M'Arthur, M.P.; Samuel Morley, M.P.; Dr. Sedgwick Saunders; Mr. G. W. Callender, F.R.S.; Mr. T. Turner (Treasurer of Guy's Hospital); Mr. Gervoise Smith.

A NEW METHOD OF LIQUID SEWAGE DISPOSAL.

FROM evidence given at a recent inquest held at Rochdale, it appears that an ingenious though fatal plan has there been devised for the utilisation of sewage. The inquest was held on the body of an engineer who had been employed at a foundry in that town, whose health was alleged to have been fatally impaired by the effluvium from the water used for the condenser of his engine. This water, it was stated, was derived from the sewers. The jury returned a verdict in strict accordance with these facts, and added a strong recommendation to the Health Committee of the Town Council to lose no time in preventing the continued use of sewage-water for such purposes. Such a recommendation was, however, we may hope, unnecessary, as it can scarcely be imagined that sewage-water was put to such a use with the knowledge, much less with the sanction, of this Health Committee. It may be as well for the residents in Rochdale to ascertain carefully to what other uses the sewage-water of the town is put.

THE Fijians are now probably beginning to think that civilisation is not an unmixed good. The annexation of the island, where but a short time back all the population were cannibals, to the British Empire has not been effected without the introduction of measles, which now carries off the Fijians with a virulence and malignity happily never experienced in Europe. Hundreds have already died, and for the last few weeks eight or ten deaths have occurred every day. A fatal termination of the malady is ushered in by dysentery. Although the families of white residents have been attacked, no fatal seizure has yet been reported among them. The natives are too frightened and suspicious to submit themselves to medical treatment, hence they are terribly punished. Precautionary measures towards suppressing the disease have been ordained by the Government, but the general panic renders it impossible to enforce them. By the latest accounts from Fiji, trade was quite at a standstill. As we go to press we read in a newspaper that over 50,000 natives have died. This, we should imagine, must be a gross exaggeration.

WE are pleased to find that a Bill has been introduced into the House of Commons which proposes to make the administration of poisonous drugs and compounds to horses and other animals a punishable offence. It has been prepared by Sir John Astley, Mr. Chaplin, and Mr. Rowland Winn, and will be cited as "The Drugging of Animals Act." It enacts that any person other than a Member of the Royal College of Veterinary Surgeons, giving a drug or poisonous substance—a list of which is scheduled—to a horse or other animal, shall be liable to fine and imprisonment. The Bill was probably suggested by the fact that a race-horse, having once been entered for a race, has to be guarded as if it were the Koh-i-Noor. In spite of the care taken of such animals, it is asserted that they are not unfrequently "got at," and given an opiate which effectually prevents them winning the race.

THE Duke of Richmond on moving in the House of Lords the second reading of the Sale of Food and Drugs Bill, which had come up from the Commons, made some observations explanatory of the provisions of the Bill, which will repeal all former Acts and consolidate the law with reference to adulteration. His Grace stated that the Select Committee at the close of their report observed that it might be some consolation to the public to know that in the matter of adulteration they are cheated rather than poisoned. The public will, we have no doubt, be thankful for this small mercy.

IT was reported a short time since, in many of the English and Irish newspapers, that the Earl of Ranfurley was killed by a wild beast while hunting in Abyssinia. This is not true. The unfortunate young nobleman had started to return home, when he was seized with dysentery, which proved rapidly fatal. His remains are expected at Dungannon, Ireland, in a few days.

THE inequality of the duties and remuneration of the respective vaccination officers of the Newcastle Union is so striking as to have drawn from the medical department of the Local Government Board a letter, which was read at a late meeting of the guardians. The communication points to the fact that while each of the vaccination officers receives £20 per annum for the discharge of his duties, the amount of these duties is in the several cases very unequal, and some alteration of the existing arrangement is urgently required. The department suggest that an adjustment might be effected without any increase of cost by paying each officer, not a salary, but 5d. for each certificate of successful vaccination registered by him. The letter was ultimately referred to the Health Committee.

SCARLET FEVER is still prevalent in Clerkenwell. At an inquest held by Dr. Hardwicke last week on the body of a child who had died of the disease, the jury appended to their verdict of "Death from scarlet fever contracted from another child in the same room suffering from scarlet fever," a rider to the effect that the sanitary officers of the parish had not taken efficient measures for arresting the progress of scarlatina in the district. The coroner, before dismissing the jury, pointed out the urgent want of a mortuary for the parish. Great pressure has been brought to bear on the representatives of the parish in the matter of a mortuary, but there are no signs as yet of an intention to erect one.

ON Saturday last Mr. Christopher Heath was appointed by the Council of University College "Holme Professor of Clinical Surgery," in succession to Mr. Erichsen, whose resignation we recently announced. This appointment is altogether a happy one, for it not only enlarges Mr. Heath's tutorial labours, for which he has always been highly esteemed by students, but it will considerably enhance the value of clinical surgical instruction at the hospital.

IN the House of Commons on Tuesday night, Mr. Stansfeld, by talking about his crotchets on medical education, succeeded in preventing the second reading of the Enabling Bill of the Royal College of Surgeons of England. We trust that the Government will yet succeed in carrying this measure, despite the opposition of Mr. Stansfeld.

A FEW days ago the Princess Alice, accompanied by her suite, paid a visit to St. Thomas's Hospital. Her Royal Highness was received by the treasurer and staff, and conducted through most of the wards. There are many other equally deserving but poorer hospitals which would be benefited by a visit from Royalty.

A GRAND fancy bazaar, in aid of the funds of the Royal National Hospital for Consumption, Ventnor, was held on Wednesday, Thursday, and Friday this week, at the Duke of Wellington's Riding-school, Knightsbridge. The very distinguished patronage under which the bazaar was held must have ensured its pecuniary success.

THE Prussian civil order *pour le mérite* has been conferred by royal decree upon Professor Stokes, of Dublin. Two other recipients of the distinction on the same occasion were Professor Schwann, the physiologist, of Liège, and Mr. Bancroft, the American historian.

IN London 1323 deaths were registered last week, including 2 from small-pox, 32 from measles, 41 from scarlet fever, 11 from diphtheria, 71 from whooping-cough, 25 from different forms of fever, 29 from diarrhœa, and 232 referred to diseases of the respiratory organs. Different forms of violence caused 51 deaths in the period. The death of a child in the Great Northern Hospital was referred to "suffocation from a tamarind-stone in the windpipe." It is stated that on the 5th inst. the hospitals at Homerton and Stockwell contained 187 patients, of whom 48 were under treatment for fever, 116 for scarlatina, and 14 for small-pox.

ON THE ABATEMENT OF EXCREMENT NUISANCE.*

WE have already, in leading remarks, recapitulated some of the chief points to which Mr. Simon has, in these last reports, directed attention, and specially those relating to filth diseases and their prevention. We propose to take the body of the Report piecemeal as opportunities occur, and now select the very unsavoury subject of disposal of excreta, introduced in an elaborately descriptive chapter by Mr. Netten Radcliffe on certain means of preventing excrement nuisances in towns and villages.

In 1869 Dr. Buchanan and Mr. Radcliffe, as inspectors in the medical department of the Privy Council, made an inquiry concerning the systems then in use in various northern towns for dealing with excrement, in connexion with the propagation of cholera, enteric fever, and other epidemic diseases, by means of excremental pollution. These inquiries brought so much useful knowledge to light that it was considered advisable to extend their scope, and the inquiry, carried on under the auspices of Mr. Simon as medical officer of the Local Government Board, last year comprised forty-eight towns and districts (including Liverpool, Manchester, Glasgow, Nottingham, and Edinburgh) and Wimbledon Camp. The inquiry was restricted to measures of abating excrement nuisance other than water-sewerage, for it was simple matter of observation that previous to the first inquiry water-sewerage had in many places been regarded as inapplicable, and in cases, too, where neither ignorance, parsimony, nor indifference to sanitary responsibilities could be justly assumed of the local authorities. And, as the first inquiry also disclosed an appallingly disgusting state of things as to excrement pollution, so it showed very clearly that the exclusive recommendation of one mode of removal or disposal could no longer have place if the inspections were to produce good results. Mr. Radcliffe, therefore, has divided his subject very systematically, describing *seriatim* the particular modes of excrement disposal and the results of his observations thereon, observing, in prefatory remarks, (1) that Bristol only of all the places visited has a uniform system; (2) that foremost among the essentials of success is the frequency of removal of deposited excrement; (3) that, having regard to the imperfect state of our knowledge of the conditions under which fæcal diseases spread, it is proposed to regard complete removal of all excrement within a day as practically constituting safety in the case where excrement is unmixed, or is only mixed with ashes; (4) that frequency of removal being acknowledged and adopted, the measure of the capacity of the receptacle should be the frequency of the scavenging, and that as a rule a handy movable receptacle has much greater advantages than one fixed, thus doing away with the evils of the old middenstead privy.

1. *The Midden System.*—There are in extensive use two varieties. The midden closet, with fixed receptacles, including those of the old type, found in the old parts of most towns, these permitting much accommodation, but with some sort of provision for keeping the contents dry and preventing soakage into the earth, as at Leeds, Birmingham, Nottingham, and Bradford; the same with special contrivances for admixture by ashes (several varieties of these

* Reports of the Medical Officer of the Privy Council and Local Government Board.—New Series, No. 2.

exist at Nottingham, Salford, Bradford, Manchester, and Glasgow), and the same arrangement, but with the middenstead reduced to a mere space under the seat, as at Hull.

In criticising this fixed system, the author records that no midden closet should be placed under rooms or workshops (*vide* a Code of Regulations issued on this subject by Dr. Trench, medical officer of health at Liverpool), that the materials of construction should be non-porous, that the middenstead should be roofed, and that ventilation in this case should be insisted upon. Drainage of a middenstead is fatal to any possible defence of a midden system at all; and, as to size and shape, the Hull middenstead, as above described, and that at Glasgow, as adapted to several families, are most satisfactory. Since largeness of size means infrequency of emptying, middensteads can scarcely be too small. The covering of the excrement with ashes or any house refuse is essential to the success of the system; the scavenger's access should invariably be from without, and if the middenstead be not simply the place under the seat, the opening for removal of the contents should be under the scavenger's sole control. As to frequency of removal, in Glasgow the contents are removed (presumably) about every other day, and in Hull once a week, the capacity of the middensteads being calculated in each case as sufficient for the accumulation that occurs in the intervals of the scavengers' visits. The only example given of midden closets with movable receptacles are those at Nottingham. They really constitute a link between the pail-closet and the midden system, a pail being placed beneath the seat, and all refuse, as well as excrement, going into it, a new pail being substituted at regular intervals.

2. *The Pail System.*—In this plan, as properly carried out, two pails are used in each closet, for excrement and refuse respectively. Metal and wooden pails are in use, the latter, as adopted at Rochdale, Nottingham, and Halifax, being the more successful. In Manchester the ash-pail is a rectangular box, and in Glasgow an ash-pit is attached to the closet, which latter, as with all fixed receptacles, Mr. Radcliffe designates as an evil. The closets should, as in the middensteads, be built of non-porous material, roofed and floored with sloping flags, with the upright of the seat and the seat itself movable. The pails may be advantageously lined with some non-absorbent material, and the form of lid is not unimportant. The author speaks highly of this system, and as regards frequency of removal says, "It is impossible not to be struck with the advantage that a pail system has in relation to diseased excrement. The facility and thoroughness with which any required chemical disinfection can be done, and the way in which the excrement itself can be wholly got rid of, leaving none of its products behind—nothing soaking into the ground, or hanging about midden-pits or sewers—obviously suggests most important powers possessed by this system for preventing the spread of excremental diseases." At Rochdale and Manchester the system gives promise of paying ultimately for the expense of its working.

3. *The Watercloset System.*—This need not be described here; and it may be recorded that, its manifest advantages being granted, two classes of difficulties in its successful use were observed by Dr. Buchanan and Mr. Radcliffe in the first inquiry. The first was created by bad mechanism, leaky or frozen pipes, and generally careless usage, resulting in choking up—a filthy and stinking state of things almost comparable to the old form of middenstead. The second difficulty, disclosed during inquiries into local prevalences of enteric fever, consists in the insufficient flushing of the closet and the blocking of the drains with excremental matter.

4. *The Earth System.*—The result of this system, if properly organised and carried out, is practically to destroy the excrement as such, producing a uniform, inodorous, inoffensive, earthy mass. Of earths more or less applicable to the system, the clayey and loamy are the best; chalk is of little use, and gravel and sand are worthless. The earth, thoroughly dried and not too powdery, must be applied in detail to each stool, in quantities of not less than a pound and a half. Mr. Radcliffe, as we might have anticipated, speaks very cautiously as to the general application of this system, but remarks that important evidence of its success is afforded by the numerous instances in which persons accustomed to watercloseta have voluntarily substituted for them this system.

5. *The Charcoal System.*—The costliness of charcoal appears to be the only obstacle to the very general introduction of this system, which, however, requires the same sort of detailed attention as that last described. The fabrication of charcoal from seaweed and (as is stated) from street-sweepings, and the further proposition of Mr. Stanford to convert excrement into charcoal, may result in an advantageous reduction of its market value. It is claimed for the system that the mixed charcoal and excrement need not be removed more than once in twelve months, but Mr. Radcliffe considers that, at all events at present, the claim is made upon a presumption that has no substantial foundation.

In applying some of the foregoing descriptions to certain of the requirements of rural districts, the author suggests that a safer advance is shown by making existing and familiar local arrangements for excrement disposal harmless, than by introducing novel arrangements or establishing a hard-and-fast line of action. The Glasgow pattern of privy is of its kind undoubtedly the best. Mr. Neville Grenville has, at Butleigh, in Somersetshire, made an inoffensive dry-ash closet out of a common privy, and Dr. C. E. Saunders, medical officer of health for Herts and Middlesex, has contrived an equally simple and successful arrangement. The pail system has been introduced by Mr. Fox, of Cockermouth, into some of the rural districts in his jurisdiction, and Dr. Francis Bond has designed some dry-ash closets for villages that are very simple, and are reported to work exceedingly well.

The conclusions arrived at by Mr. Radcliffe have been alluded to *seriatim*, but in summary thereof he observes (1) that the watercloset system may be arranged so as to be entirely applicable to the circumstances of the most ignorant and careless population; (2) that both the dry-earth and charcoal systems are good; (3) that the midden system may be modified so as greatly to reduce nuisance and danger arising from it; (4) that the pail system possesses indubitable advantages for poor town districts; and last, but chiefest, that the essential element of all the above systems, as applied to poor neighbourhoods, is that their entire arrangements shall be conducted by the sanitary authority.

We must leave to a future article the consideration of the disposal of "slops" (also commented on at length in this Report), and for detailed particulars in connexion with the above must refer our readers to the Blue-book, and the large number of plates contained therein. For this is a valuable textbook on a most consequential though nasty subject, and ought to be in the possession of all medical officers of health.

STATE MEDICINE.

SURGEON-MAJOR DE CHAUMONT'S fourth lecture on this subject was delivered at the Apothecaries' Hall on Saturday, June 5th, and was devoted to a consideration of soil in its relation to health, sewage and the disposal of effete matters, and the disposal of the dead.

The lecturer commenced by referring to the important relation to the situation of a town or city to the health of its inhabitants, and remarked that it has, however, rarely happened that the site has been chosen with any regard to that point. Other considerations have generally prevailed. The influence of soil is considered by some to be paramount as a factor in the propagation of disease, and its importance as affecting both air and water must be admitted. The features of the soil which may affect the question of healthiness are—first, its gaseous contents; secondly, the water it contains; thirdly, its solid constituents; and, lastly, its conformation, and the presence or absence of vegetation. All loose soils, and even most rocks, contain air, the chief condition of which is a remarkable and greatly varying amount of carbonic acid, due to the oxidation of organic matter in the soil. In the upper part, the carbonic acid is found to vary inversely as the oxygen, and it appears to accumulate chiefly during the summer months. The observations which have been made on this point show the

remarkable disinfecting power of all soils. The porosity of a soil is an important point, and may be easily measured by means of a Burette arrangement devised by Pettenkofer. In loose soils in Europe the porosity is about 40 per cent. In tropical countries it is about 10 per cent. higher. The facility with which gases pass through soil depends upon the porosity. The presence of a house on any site sets up a sucking action, in consequence of the air of the house being warmer than the air of the soil beneath. Foul air has been drawn into a house from a cesspool twenty-seven feet distant, and even a fatal case of poisoning by coal-gas has originated in the same way. The chief diseases attributable to soil emanations, are pyrexia, enteric fever, yellow fever, bilious remittent fever, and dysentery. It is desirable that such emanations should be intercepted by concrete foundations, and even by layers of charcoal in some instances. As to the water in soil, in addition to that which exists as mere dampness, there is the ground water, or underground lake, which exists at a varying depth in all places. This is continually in motion generally towards the sea or the nearest watercourse. Its height varies with the formation of the soil, rainfall, and other circumstances, and is subject to rise and fall. It is generally admitted that a persistently low ground water, of about fifteen feet below the surface, is healthy, while a constantly high ground water is the reverse. A suddenly fluctuating level is very unhealthy. Pettenkofer holds that when the water begins to subside, after being high, disease becomes prevalent. He regards the amount of oxidation which takes place in the space left by the water as the real cause of disease, and he attributes typhoid fever and even cholera to this cause. Pettenkofer's observations at Munich showed that as the ground water rose the deaths from typhoid fell, and as the ground water fell the deaths from typhoid rose. A diagram, setting forth these observations by means of two proportional curves, was referred to, and the lecturer stated that these curves had been subjected to mathematical analysis with the result that, according to the theory of probabilities, the chances of the two curves being connected were as thirty-six thousand to one. The correspondence, however, fails at Zurich and some other places, and hence it seems that, even if the subsidence of the ground water is a factor in the production of disease, it is in some cases overruled by some other and more potent influence. The fact that a low ground water is good is amply shown by Dr. Buchanan's report to the Privy Council, from which it appears that not only typhoid, but even phthisis and other lung diseases, have been lessened by draining the subsoil. This improvement had been conspicuous at Salisbury. The influence of the solid constituents of soil is due partly to their chemical composition and partly to their geological formation. Some persons are inclined to attach much importance to the geological formation. In the kingdom of Saxony cholera was shown to be worst in those districts where the soil was suballuvial, while on the gneiss, granite, and sandstone there was complete immunity. The drinking water, however, is always better in the last-named formations than in a suballuvial district, so that the soil itself may have had only an indirect effect with regard to the disease. The primitive and metamorphic rocks, which are those forming the district where cholera was least in Saxony, are just those where the slope is greatest, and where the drainage would be good, and the substances yielded to water very few. Towns are exposed to danger through being built on artificial or made soil, upon which for some time previously refuse of all kinds has been shot in response to the customary invitation, "Rubbish may be shot here." An examination made by Dr. Parkes of such soil at Liverpool revealed the presence of cinder refuse, potato-parings, rotten paper, rotten wood, bones, rotten straw, rotten cloth, egg-shells, fish-bones, and other matters. The heat-absorbing power of soils has a bearing on the question of health. Soil consisting of sand, with some lime, absorbs most heat, and humus absorbs least, the relation of the former to the latter in this respect being as two to one. The planting of trees will often improve the healthiness of a district, as shown at Hong Kong, in France, and elsewhere. The eucalyptus of Australia is very useful for this purpose. The beneficial effect of improved cultivation is shown by the fact that ague is now almost unknown in this country.

In reference to the disposal of excreta, it was stated that the diseases attributed to sewage emanations are typhoid, enteric fever, cholera, dysentery, pneumonia, ophthalmia, diphtheria, and probably also scarlet fever. Phthisis and other diseases have been more or less aggravated by them. The condition of towns, with regard to sewage arrangements, has improved since the time of the Health of Towns Commission, but in the rural districts things are still in a very bad state, the cesspool being almost universal. Opinions are greatly divided as to the best mode of removing excreta. There are wet methods and dry methods, among the latter being Moule's dry earth-closet. It is now admitted that the practice of discharging all the material into the sea is a mistake; while the results of the irrigation which has been carried on for centuries near Edinburgh show that sewage may be utilised by irrigation without producing disease. The fertility of China has been attributed largely to the care with which the inhabitants return to the soil that which they take from it. Water is generally resorted to as the vehicle for the carriage of sewage, and it is doubtful whether sewage can be applied profitably to land when a large mass of water is mixed with it. As to the hygienic aspect of water carriage, there is no reason why that method should not be perfectly healthy when due care is taken to prevent the escape of sewer-gases into houses. The dry methods seem to answer where the land to which the sewage is to be applied is not too far distant, but this advantage cannot be obtained in a large community, and hence these systems involve too much labour to be practicable. The recently introduced pneumatic method of Liernur has been tried on the Continent, and seems to promise well. It is about to be tried at Winchester under the direction of Mr. Scott. Dr. Parkes thinks that no one system of removing excreta will meet all circumstances.

In dealing with the question of the removal of the dead, the lecturer alluded to the state of things revealed by the Report on Intra-Mural Sepulture in 1850, after Mr. Edwin Chadwick had moved in the matter. It was estimated in that report that in various burial-grounds in London, comprising in all 218 acres, a million and a half of dead bodies were crammed in every thirty years. This state of things has been remedied in large towns, but it is becoming more and more difficult to dispose of the dead. After considering the various plans which have been suggested to replace the present mode of interment in this country, the lecturer gave it as his opinion that cremation, if properly conducted, possessed most advantages, and must ultimately supersede our existing usages.

Correspondence.

"Audi alteram partem."

THE PRIMARY EXAMINATION FOR THE FELLOWSHIP AT THE COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—Your correspondent, "W.," in his admirable letter in your issue for this week, having called attention to certain faults in the Examination for the Fellowship of the Royal College of Surgeons as at present conducted, I would venture, if you can afford me space, to point out what seem to me still more radical errors—viz., the division of the examination into two parts, the admission of students to the Primary Examination at the end of their third winter session, and the elevation of the standard of knowledge required to a pitch unattainable by the majority of good surgeons in active practice, and who are not or have not been actually engaged in teaching anatomy. The readiest way of explaining my meaning is to take a glance at what the F.R.C.S. was and what it is. Before the regulations above alluded to came into force, the F.R.C.S. was a diploma taken almost exclusively by those who, from circumstances or inclination, had paid special attention to the study and practice of surgery, and who were anxious to put themselves in the position of surgical consultants, either in some large city or town or amongst their rural professional neighbours. To obtain it, a man had to show that at the age of five-and-twenty, at least, and at a time not less than six

years from the commencement of medical study, he had that knowledge of physiology and anatomy which everyone desirous of distinction above his fellows in surgery should possess. It was, in fact, then a practitioners' examination, and it was adapted to practitioners. The standard of anatomical knowledge required was, no doubt, not so high as it is at the present time; but, such as it was, it was probably much higher than that possessed by many of the candidates at the Pass Examination under the present regulations. The examination now is no longer for practitioners. It is a students' examination, and adapted to students only. The standard of knowledge has been so raised that few men in actual practice can possibly find time or opportunity for the necessary study. On the other hand, we have no proof that those who passed the Primary as students have any proper anatomical knowledge when they present themselves for the Pass Examination. Supposing a young man to commence study—as most do now—at the age of seventeen; after three years, if he is of ordinary intellectual capacity, he should have no great difficulty in passing the Primary Examination. He may then (at the age of twenty) dismiss anatomy and physiology from his mind, and five years after, when his amount of knowledge has sunk far below the standard formerly required for the Fellowship, he may present himself for an examination in Surgery and Surgical Pathology without (as far as I am able to ascertain) any direct inquiry being made as to his anatomical and physiological acquirements. The reasons which prompt students to present themselves for the Primary Examination for the Fellowship are very various, and many are such as are not likely to lead to an elevation of the dignity of the diploma. Thus I have known men who from idleness have been rejected for the Primary Membership Examination, comfort themselves with the reflection that they could "take another year and go in for the Fellowship." Others again, having begun very young, and not knowing how to fill up a year of study, adopt the same course. Candidates for the degrees of the London University frequently pass the examination at the same time as the first M.B., as the work is the same. A few, not having matriculated at the University, and desirous of having something higher than a simple Membership, present themselves for the Fellowship, and a minority—a very small minority—do the same because they intend to devote themselves somewhat specially to surgery. Now, all these reasons, except the last, are not those which should guide a man when applying for a diploma supposed to stamp its holder as having paid special attention to surgery, and all except the last are the outcome of the present regulations. In all probability, as the number of Fellows produced by such means increases, the value of the F.R.C.S. will decrease. Public institutions will recognise the fact that F.R.C.S. after a man's name is no proof that he has ever, except as a student, given any special attention to surgical matters, and will cease to make it, as it so frequently is, a necessary qualification for surgical appointments. The respect in which the Fellowship has been held till now has been due more to the surgical talents of those who have held it than to the severity of the examination by which it was obtained. It remains to be seen whether an examination test alone, calculated as it is to exclude nearly all except those who make up their minds to present themselves during their third year of study, and consequently all but a few of those who have devoted themselves to surgery in their more mature years, will maintain the high reputation the Fellowship has till now enjoyed.

Moreover, the regulations, as at present existing, tend directly to degrade the knowledge of anatomy amongst surgeons, by rendering unnecessary that complete and thorough study of the subject at an age of at least twenty-five, without which it was impossible formerly to obtain the F.R.C.S. All who have had the teaching of fourth-year students must know how little of the anatomy of two years before is left in them; and, on the other hand, anyone who has been compelled to revive his former knowledge some years after its first acquisition, must know how comparatively easy is the task and how much more permanent are the results. The necessity for this revision of anatomical knowledge is fully recognised by the University of London, as, in spite of the stringent examination of the first M.B., candidates both for the B.S. and M.S. degrees are wisely compelled again to pass in anatomy.

It is much to be regretted that surgeons have now no examination in any way corresponding to the M.R.C.P. Formerly the F.R.C.S. had some pretension of so doing, as it was at least a practitioners' examination; but now even that resemblance is gone, and it is difficult to conceive what object there can be in maintaining the examination at all in its present form. It is at the best but a feeble thing to examine a student in but two subjects after three years at study. The whole thing is done much better at the University of London, and there the student should go if he requires a higher qualification. As for the old practitioners and the many excellent surgeons and sound practical anatomists who are to be found scattered abundantly over the country—if the present regulations remain unaltered,—they must either make up their minds to give up their practice and become students again for a year or more, with all the horrors of an uncertain examination before them, or else go without the Fellowship till old age entitles them to election—a loss they will more easily bear when they find the country overrun with Fellows having no special surgical experience or abilities, and who are therefore unlikely to enhance the dignity of the diploma they have obtained.

Apologising for the unintentional length to which my subject has carried me,

I am, Sir, your obedient servant,

June 5th, 1875. F.R.C.S.

THE FORTHCOMING ELECTION AT THE COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—I shall feel obliged if you will allow me to state the exact reasons which have determined me not to stand for the Council of the College of Surgeons at the next election, as notified by you last week.

As you justly remark, at the election last year I fell little short of success, thanks to the many friends who spontaneously, and without the least effort on my part, supported me so well that my competitor was only eight votes ahead of me. Thus encouraged, I had fully purposed to become a candidate this year, but on the very day I had obtained the necessary papers I was informed by Mr. Cooper Forster that he had determined to stand for election. Mr. Forster is my senior both as a member and as a fellow of the College, and at the election in 1873 he was only beaten by a single vote, a very large body of fellows thus clearly showing that they were anxious to place Mr. Forster on the Council. Taking these circumstances into consideration, I at once made up my mind that I would withdraw from the contest this year; and, on laying the matter before those friends whose judgment I value, I found that they entirely endorsed my proposition.

I think it only due to those gentlemen who by their powerful support so nearly carried me to success last year that I should thus explain the motives which will prevent me from profiting by their kindness at the forthcoming election in this present year.

I am, Sir, yours obediently,

Wimpole-street, June 7th, 1875. HENRY SMITH.

"DRUNK OR DYING?"

To the Editor of THE LANCET.

SIR,—A report headed "Drunk or Dying?" appeared in the *Times* of June 1st, giving an account of an inquest held at the "Bank of England," Cambridge-place, Paddington, by the coroner, on the body of a cab-driver (Wm. Finch), aged sixty, who was conveyed to the Paddington Police Station on the morning of the 27th ult.

As the medical man who attended the case, allow me to point out some inaccuracies in that report. It is therein stated that Acting-Inspector George Churchhouse, said: "He at once sent for Dr. Westmacott, who called his attention to a bruise under the right eye of the deceased." This is a mistake, as I called his attention to the insensible state of both eyes as well as of the whole body. I believed the deceased to be insensible from drink, and treated him accordingly. After a lapse of an hour and a half, during

which time, on several occasions, he vomited a quantity of undigested food tainted with liquor, he recovered the mobility of the right eye, and to some extent the use of the right limbs, but the left eye and limbs remained in a paralysed state with stupor. There was a bruise and puffing under the *left* eye, to which I called the attention of Inspector Hogan and others, telling them that I believed the deceased had received some injury, and that a bloodvessel had burst in the head, which would account for his paralysed condition. This is at variance with the statement that "the medical gentleman was two hours attending to the deceased and could not diagnose the case." I watched the deceased from the time I first saw him (a quarter before two A.M.) until his removal, which I ordered, to St. Mary's Hospital about 4 A.M., when I gave a certificate as to the condition. I was also present at the post-mortem and saw the clot of blood on the right side of the brain which produced apoplexy. By inserting this letter in your valuable journal you will much oblige, yours very truly,

JOHN G. WESTMACOTT,
Surgeon X Division Metropolitan Police.

St. Mary's-terrace, Paddington, June 8th, 1875.

P.S.—I addressed a letter on this subject to the Editor of *The Times*, but it has not been inserted.

THE ROYAL COLLEGE OF SURGEONS.

AT a meeting of the Council held on Thursday last it was resolved, on the motion of Mr. Marshall, that an annual report of the general progress of the College should be presented to the fellows by the President. There was, we understand, a motion by Professor Humphry respecting the admission to the fellowship, but this was withdrawn, as a committee had already been appointed to consider the whole question. At the same meeting several gentlemen were nominated professors of the College, but have not yet been appointed.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members, having passed the required examinations for the Fellowship on the 27th, 28th, and 29th of May, were, at a meeting of the Council held on the 10th inst., duly admitted Fellows of the College:—

Bristowe, Henry, L.R.C.P. Lond., H.M. Prison, Millbank; diploma of membership dated July, 1863.
Chicken, Rupert Cecil, L.R.C.P. Lond., Nottingham; April, 1872.
Cripps, William Harrison, Pall-mall; July, 1872.
Doran, Alban Henry Griffith, L.S.A., Lansdowne-road, Kensington-park; January, 1871.
Eastes, Thomas, L.S.A., Folkestone; July, 1872.
Green, Frederick King, L.S.A., West Dulwich; January, 1864.
Herman, George Ernest, L.S.A., St. Matthew's Infirmary, Bethnal-green; April, 1870.
Ley, John William, L.S.A., Poplar Hospital; November, 1869.
Lowe, Walter G., M.B., L.R.C.P. Lond., Burton-on-Trent; Jan. 1870.
Macnamara, Nottidge Chas., Medical College, Calcutta; April, 1854.
Pye-Smith, Rutherford J., L.R.C.P. Lond., Guy's Hospital; July, 1871.
Rope, Henry John, Blaxhall, near Wickham Market; Jan. 1870.
Walsham, Wm. Johnson, M.B., C.M. Aberd., Camden-road; Nov. 1871.

Eleven candidates, having failed to satisfy the Court of Examiners, were referred to their professional studies for twelve months.

The next examination for the Fellowship will take place in November.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on June 3rd:—

Burnes, Henry Foster, Burwell-road, Highbury-park.
Croudace, James Henry, Waratah, South Australia.
Powell, Joshua, Broniwan, Newcastle Emlyn.
Smith, William Robert, Seaford, Ontario, Canada.
Turner, Walter Pickett, Stanford, Kent.

The following gentlemen passed the Primary Professional Examination on the same day:—

Edward King Houchin, Alfred Kay, and Edwin Addison Marsh, London Hospital; John Menham Pietts and Thos. Wilmot, St. Bartholomew's Hospital; G. Marsden Whitehead, St. Thomas's Hospital.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the fellows held on Monday, the 7th inst., the following gentlemen were elected to act as office-bearers for the ensuing year:—President: Edward Hamilton. Vice-President: John Hamilton. Secretary: William Colles. Council: William Colles, Richard G. H. Butcher, Alfred H. M'Clintock, George H. Porter, Professor M'Dowel, Albert J. Walsh, Joliffe Tufnell, Edward Ledwich, Rawdon Macnamara, John Morgan, George H. Kidd, John Kellock Barton, Edward Dillon Mapother, Archibald H. Jacob, Philip Crampton Smyly, John Denham, William Stokes, William J. Wheeler, Samuel Chaplain. We understand that a resolution in favour of the Pharmacy Bill now before Parliament has been passed by the College.

THE Local Government Board has, it appears, signified its approval of the proposed plan to furnish Cowpen and its neighbourhood with a better supply of water, which, indeed, was sadly needed. The Cowpen local board has, accordingly, been empowered to purchase and take by compulsory powers lands and premises required for the carrying out of the scheme.

PRESENTATION.—Mr. E. T. C. Ellis, M.R.C.S., Eastbourne, was recently presented with a gold watch and a purse of fifty sovereigns as a token of the esteem in which he was held in the neighbourhood while acting as assistant to Mr. R. Colgate, of Eastbourne. Mr. Ellis has been elected medical officer of the Heathfield district of the Hailsham Union.

Medical Appointments.

BUCK, J. R., L.R.C.P.Ed., L.M., M.R.C.S.E., has been appointed Medical Officer for No. 2 District of the Worcester Union.

CALVERT, C., M.R.C.S.E., has been appointed Medical Officer for the Workhouse and the Southwell District of the Southwell Union, vice Elliot, resigned.

CHIMBERY, E. F., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer of Health for the Lymington Urban Sanitary District.

COCHRANE, H., L.R.C.P.Ed., L.F.P. & S. Glas., has been appointed Medical Officer and Public Vaccinator for the Parish of Port Patrick, Wigtonshire, vice Stewart, whose appointment has expired.

COOTE, M., M.D., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for Nos. 2 and 3 Districts of the Ashby-de-la-Zouch Union, vice Dicken, deceased.

LANGAN, F., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer for the Longford Dispensary District of the Longford Union, vice Peter, deceased.

MACDONALD, J. E. L., L.R.C.P.Ed., L.R.C.S.I., has been appointed Medical Officer for No. 4 District of the Shepton-Mallet Union, and No. 2 District of the Langport Union, vice Culling, deceased.

NIBBET, W., L.F.P. & S. Glas., L.M., has been appointed Medical Officer for the Thornley District of the Easington Union, Durham.

NUTT, H., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the rearranged North-Western District of the Sherborne Union, Dorsetshire.

PALFREY, J., M.D., has been elected Lecturer on Midwifery and Diseases of Women at the London Hospital.

PATCHETT, J., L.R.C.P.Ed., L.F.P. & S. Glas., has been appointed Medical Officer to the Free Gardeners' Society, Great Harwood, Lancashire.

PENNY, W. L., M.B., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Colton District of the Ulverstone Union, vice Stunt, resigned.

PIERIS, G. F., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Attending Medical Officer to the Hampton House Reformatory for Girls, Belfast, vice Purdon, resigned.

RAVERTY, J., L.R.C.S.I., L.R.C.P.Ed., has been appointed an Hon. Medical Officer to the North Dispensary, Liverpool, vice Shearer, transferred to the South Dispensary.

RIDLEY, J., L.K.P.C.P.I., L.R.C.S.I., has been appointed Medical Officer to the King's County Infirmary and the County Gaol, Tullamore, vice John Ridley, L.K.Q.C.P.I., F.R.C.S.I., deceased.

ROE, R. G., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Cliffony Dispensary, Carney Dispensary District, Sligo Union; and Medical Attendant to the Royal Irish Constabulary, Cliffoney and Inishmurry, vice Popham.

RUSSELL, R. F., M.B., L.R.C.S.I., has been appointed Surgeon to the Tipperary County Infirmary, Cashel, vice R. P. Russell, F.R.C.S.I., deceased.

SHEARER, G., M.D., L.R.C.S.Ed., has been appointed an Hon. Medical Officer to the South Dispensary, Liverpool.

SKELLY, W., M.D., L.R.C.S.Ed., has been appointed Resident Surgeon to the Western General Dispensary, Marylebone-road, vice Kennedy, resigned.

STEELE, H. O., M.R.C.S.E., has been appointed Medical Officer of Health for the Somersal Urban Sanitary District.

THORNLEY, J. G., M.D., L.R.C.S.Ed., has been appointed Assistant House-Surgeon to the Bristol General Hospital, vice Percy Owen-Jones, M.R.C.S.E., L.R.C.P.Ed., resigned.

TURNER, F. H., M.R.C.S.E., has been appointed Medical Officer for the Chipping-Wycombe District of the Wycombe Union, vice John Turner, F.R.C.S.E., resigned.

WALSHE, T. P., L.K.Q.C.P.I., F.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Ballinakill Dispensary District of the Abbeyleix Union, Queen's County, vice Fitzpatrick, deceased.

WILSON, J. S., M.R.C.S.E., L.R.C.P.Ed., L.M., has been appointed Medical Superintendent of the Greenock Amalgamated Friendly Societies' Medical Association.

Births, Marriages, and Deaths.

BIRTHS.

BEVERS.—On the 3rd inst., at Bevington-road, Oxford, the wife of E. A. Bevers, M.R.C.S.E., of a son.

CROKER.—On the 3rd inst., at the Military Hospital, Queenstown, the wife of Arthur Croker, L.R.Q.C.P.I., Surgeon-Major, of a son.

INNES.—On the 5th inst., at Rosslyn-bank, Lyndhurst-road, Hampstead, the wife of F. W. Innes, M.D., C.B., Surgeon-General (retired), of a son.

M'DONALD.—On the 9th of April, at Hamilton, Tasmania, the wife of Thos. Wallis M'Donald, M.R.C.S.E., L.R.C.P.Ed., of a son.

MORRIS.—On the 2nd inst., at Somers-place, Hyde-park-square, the wife of James Morris, M.D., of a daughter.

MARRIAGES.

BENNETT—THOMPSON.—On the 3rd inst., at St. Pancras Church, Henry Selfe Bennett, M.B., to Jessie Adeline, daughter of H. A. Thompson, Esq.

BURMAN—KING.—On the 3rd inst., at St. James's Church, Devizes, James Wilkie Burman, M.D., Medical Officer and Superintendent of the Wilts County Asylum, to Mary Weare, only child of the late Mr. George King, of Devizes.—No Cards.

MORSON—MACKENZIE.—On the 9th of Feb., at St. Mary's, Waverley, near Sydney, Alexander Kinnear Morson, M.D., of West Maitland, New South Wales, to Maria, second daughter of the late Francis Mackenzie, Esq., of Wigan, Lancashire, England.

DEATHS.

CAIRNS.—On the 7th ult., at Lauriston-place, Edinburgh, Thos. Cairns, M.D.

CARDELL.—On the 2nd inst., at Wincanton, Geo. Cardell, M.R.C.S.E., aged 41.

CASSON.—On the 1st inst., at Anlaby-road, Hull, F. W. Casson, M.R.C.S.E., aged 56.

LEWIS.—On the 16th ult., at Cheltenham, H. J. Lewis, Surgeon, aged 71.

PEPLER.—On the 22nd ult., at Britford, Wilts, W. B. Pepler, M.R.C.S.E., aged 44.

SMITH.—On the 24th ult., at Talbot-road, Paddington, John Nelson Smith, M.D., aged 69.

STEELE.—On the 2nd inst., at Wishaw, Lanarkshire, James Steele, M.D., aged 61.

THOMAS.—On the 20th ult., at Kemp-town, Brighton, Griffith Robert Thomas, M.R.C.S.E., aged 40.

[N.B.—*A fee of 2s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

BOOKS ETC. RECEIVED.

Dr. Tilt: Health in India for British Women.
Dr. Billing on Cholera.
Dr. Corson: Treatment of Pleurisy.
Dr. Ure's Dictionary of Arts. Vols. I., II., & III.
Dr. Macauley: Plea of Mercy to Animals.
Capt. A. Griffiths: Memorials of Millbank. Vols. I. & II.
Dr. Wynter: Borderland of Insanity.
Dr. Garrett: The Human Voice.
Comte's Positive Philosophy, by Martineau.
Mr. Whitney: The Life and Growth of Language.
Mr. Huth: The Marriage of Near Kin.
Dr. Anns: Sex in Industry.
Dr. Ziemssen: Cyclopædia of the Practice of Medicine.

Notes, Short Comments, and Answers to Correspondents.

PUBLIC SCHOOLS SANITARY COMMISSION.

WE have received a considerable number of letters from masters, parents, and medical men on this subject. It would be impossible for us, owing to the number of our correspondents, to give an acknowledgment in each case. We therefore take this opportunity of thanking those who have written to us on the subject for the valuable information their letters contain. We hope to continue our Report next week, when we shall deal with internal arrangements of the school buildings and details of general hygiene.

Mr. Robert Harrison.—The custom varies in different places. For the most part in the country the rule is for the new-comer to call first. Whichever way, promptness in reciprocating amenities is seemly.

Sir Charles Trevelyan's letter arrived too late for insertion in our present issue.

HEADACHE FROM INTRACRANIAL DISEASE.

To the Editor of THE LANCET.

SIR,—In connexion with Dr. MOXON's lecture on the "Treatment of Headache from Intracranial Disease," published in your issue of May 29th, I may say that Dr. Clifford Allbutt has used injections of morphia in these cases with very marked results, and I have never seen any evil consequences, and the practice of giving subcutaneous injections of morphia has been in use at this infirmary for the last six years. I remember two or three marked cases of relief during my residence here.

I am, Sir, your obedient servant,
JOHN J. PICKLES, House-Physician.
General Infirmary, Leeds, June 2nd, 1875.

FUTURE PRIZES OF THE ACADEMY OF MEDICINE OF PARIS.

IT may be of interest to our readers to be *au courant* of the prizes which the Paris Academy of Medicine will give in 1876, and which are all open to foreign competition. They run as follows:—Prix de l'Académie: "Comparative Study of the various Modes of Dressing in extensive Wounds," £40. Prix Portal: Best memoir on any subject of Pathological Anatomy, £40. Prix Cevrioux: "On the Part played by the Nervous System in the Production of Glycosuria," £80. Prix Capuron: "Changes in the Placenta, and Influence thereof on the Development of the Fœtus," £80. Prix Barbier: £120, to the discoverer of a certain means of curing diseases considered hitherto as incurable (Phthisis, Cancer, Epilepsy, Hydrophobia, Typhus, &c.). Prix Godard: Best work on "Internal Pathology," £40. Prix Orfila: "On Aconite and Aconitia, considered as regards Physiology, Therapeutics, Legal Medicine, &c. &c., and with special investigation of Antidotes," £160. Prix Itard: Best memoir on "Practical Medicine or Therapeutics published within the preceding two years," about £120. Prix Falret: "On Madness in its relation with Epilepsy," £30. The memoirs for all these prizes must be written in French or Latin, and accompanied by a sealed letter, containing the name and address of the author, except as regards the Prix Itard, Godard, and Barbier. They must all be sent in to the Secretary before May 1st, 1876.

Mr. Easby.—We will not lose sight of the communication.

CROUP AND DIPHTHERIA.

To the Editor of THE LANCET.

SIR,—The remarks addressed by me to the West Kent Medico-Chirurgical Society, and which you published a fortnight ago, were designed to help forward the true interpretation of very important and practical questions: the non-identity of croup and diphtheria, and the non-infectiousness of the latter disease.

Notwithstanding Dr. Johnson's probable suggestion as applicable to some of my observations, I cannot well understand how cases of croup can be mistaken for diphtheria. Croup is an acute inflammatory disease, chiefly attacking the young, and proving fatal by obstructing the air-passages, and this without general implication of other organs. Diphtheria, on the contrary, is a low-type disease, attacking all ages when exposed to filth and stenches. Again, croup is only seen in individual cases, and never runs through a family, killing in the first instance the youngest and weakest, and so passing up in the family scale, as is the not unusual history of a diphtheria incursion. Here safety is alone found in flying from the pest-house. Finally, croup is never complicated with albumen in the urine; whilst in diphtheria this morbid state is the rule. With such marked general pathological differences, to say nothing of the special characters of the membrane formation in the two diseases, it is strange that any observer should fail to diagnose croup from diphtheria.

The next leading question raised by Dr. Johnson is that of infection, to which I must reply that no case has presented itself to me due to communication. On the contrary, for many years past I have seen children suffering from diphtheria brought into houses where the disease has not prevailed, and there has been no spreading of the malady, notwithstanding there were other children, younger and older, dwelling there.

Not long ago a family under my care, consisting of nine persons, including seven young children, were attacked with diphtheria, every child yielding to the poison of the house. There were two deaths, and it is probable that others would have died had they not been distributed among their neighbours, many of whom had children, and yet the disease did not spread. Another case illustrating this non-infectious character may be mentioned. A child, five years old, after staying in London, was sent home with sore-throat, which proved to be diphtheria, slept with his mother and the babe, two other children, both younger than the sick boy, sleeping in the same room, and yet there was an absence of communication of the disease.

Whilst placing on record these facts, I am not unaware that the annals of medicine—Dr. Johnson giving one case, and only one—afford no lack of proof that "diphtheria is a dangerously infectious disease." It has, however, not presented itself before me in this character, and for many years past I have very carefully watched and traced its development and progress. I must, therefore, again assert that, to the best of my belief, diphtheria is an endemic and non-infectious disease, and wholly different from croup.

The other questions raised by Dr. Johnson, although important, do not require so immediate a reply.

I remain, Sir, yours &c.,
Lee, June, 1875. WILLIAM CARR, M.D.

Rodine.—Evaporate to very small bulk at gentle heat, and boil for fifteen minutes with copper and dilute hydrochloric acid, both perfectly pure. Arsenic is precipitated on the copper. The latter is then dried, and heated in a small tube closed at one end. The arsenic oxidises and sublimes as octohedral crystals of As_2O_3, which may be further tested if necessary.

Mr. J. B. Tuke, (Edinburgh.)—The method of Malassez, which is given in the "Archives de Physiologie," 1874, p. 31.

Tertius Ipsgate.—We know nothing whatever of the men.

GOOD BEER.

To the Editor of THE LANCET.

SIR,—I cannot get a good glass of beer. Can you tell me who makes the pure article with malt and hops? I am afraid we are all being poisoned with pernicious bitters.

Your obedient servant,
Reform Club, June, 1875. S.

*** Our correspondent is by no means singular in his complaint. We fear the quality of malt liquor in general has greatly deteriorated within the last few years. Some of the stuff now sold as beer is largely sophisticated with deleterious ingredients capable of producing serious constitutional disturbance. The encroachment of the cheap light wines of the Continent necessitates a competition which year by year reduces the quality of ale. What our forefathers termed "brown October" can now only be obtained by brewing in one's own house.—ED. L.

SANITARY REPORTS.

IN consequence of the vast and ever-flowing stream of this material (which is of little use if presented to the reader in drops or driblets, but valuable for purposes of reference if properly and systematically collated), we purpose to publish at intervals a *précis* of all Sanitary Reports sent to us by medical officers of health. With this object in view, we shall be glad to receive such Reports as soon as practicable after publication.

Provincial Physician.—The scales that have been published at Sydenham, Shrewsbury, &c., do not apply to the kind of practice which our correspondent follows. He will do well to make his own scale. Dr. Julius Styrap, of Shrewsbury, would, we doubt not, forward him some information.

Dr. Leonard Sedgwick shall receive an answer next week.

ARMY MEDICAL DEPARTMENT.

To the Editor of THE LANCET.

SIR,—At a time when there is so much diversity of opinion amongst the members of the army medical department regarding the unification and regimental systems, individual experiences may not be wholly worthless, as the writer fancies that most of those who advocate the regimental system may be suffering from the bad administration of the new scheme, or rather the utter absence of unification, which characterised the department in England a short year ago.

Many of our administrative officers having been drilled for years in the old system find it difficult in their *old age* to alter their views to meet the necessities of the present age, and in consequence, instead of unification in its integrity, a mongrel system prevails, wretched for the service, wretched for the soldier, and wretched for the individual doctor. The writer has always been one of the working members of the department, who were formerly erroneously called staff assistant-surgeons, and consequently hailed the unification scheme as the only just method of equalising work, foreign service and such matters, and of giving to those who were so disposed an opportunity of professional improvement—a thing hardly possible under the isolated regimental hospital system.

After return from foreign service, about the time the unification Warrant was published, I had a good opportunity of observing and knowing personally the results of the Warrant in the district in which I served, some of which I shall try to convey. The then administrative officer was a regimentalist, and clung to previously engrafted ideas of regimentalism with a fervour worthy of a better cause, utterly regardless of the discomfort of what were to him mere departmental officers, and so the old system was continued so far as hospitals were concerned. With the officers it was different. Many were changed from corps to corps, at intervals varying from months to weeks, or even days, being "utilised," not attached to regiments as formerly; in some instances not asked to be a member of a mess, yet having none of their own; in some unable to obtain a soldier servant; unable at any time, from constant changing, to put a servant in livery, and therefore in some instances precluded from attending at mess; and life to many became intolerable. In one station, a short distance from London, the state of affairs was very extraordinary. A general hospital existed, large and roomy, and yet, twelve months after the publication of the Warrant of 1873, three different hospitals were maintained in the same building, and officers were removed from corps to corps in the same station, thus involving change of residence, servants, and a great expense; whilst the sick men were all in one building, in different rooms, and called by different names. Surely this was not unification. If it was, I can say, from personal experience, that life was unbearable under such a *régime*. Nor is it any wonder that officers should cry out for the regimental system, as I at that time did; for under it worthy men had invariably the protection of their commanding officers; whereas under the hybrid system above described they had none, and any representation they might wish to make to the head of their department could either be pigeon-holed or put in the waste-paper basket "in due course," as best suited the intermediate official through whom such communications should be forwarded.

There is no place in England where it will be more difficult to deal with the unification scheme than in Dover, with a large garrison stationed on nearly inaccessible heights, and at great distances from each other and from any central point. If medical officers are allotted quarters in any one of these barracks with a regiment, it will place them in a very equivocal position, sharing the same roof, but not of them, and having no claims to the advantage of joining their mess, nor to a regimental servant, and with no accommodation for a civilian one, who, moreover, must be fed and clothed out of very limited resources, the Government allowance of one shilling a day being utterly inadequate. On the other hand, in such a station, if medical officers are allowed lodging money according to rank, they could procure a house convenient to their work, establish a mess of their own, be a centre of a social system, and show that they could exist without the reflected glory of any regiment, and prove to the world, as they have already proved to those who know them best, that they are worthy of the name of Royal Medical Staff. An *esprit de corps* would shortly exist, which would rid the department of many worthless members, who are sheltered by the colours of various corps.

In the reorganisation of the department it is useless making a limit of fifteen years for promotion. Twelve years should be the outside limit, and without this point gained reorganisation will be futile, as discontent will prevail as it has hitherto prevailed. The points, therefore, to be taken into consideration are—promotion; servants' allowance; provision in large stations for the formation of a medical staff mess; a definite provision in time of active service for military servants being allowed, if not from the fighting men, from the non-combatant ranks. This should not be left to the option of general officers, as on their decision will depend the efficiency of the medical department. It is absurd to expect that an officer or officers, who might have to draw their own provisions and cook them, could do their duty well as doctors, yet such are existing regulations. All pre-existing appendages of rank should be restored, such as forage allowance &c., and authority given to administrative medical officers to conduct all matters relative to the health of the troops, and in any way connected with their department, as they may consider proper, and all unnecessary moving and counter-moving, to suit the ideas of ancient staff officers (combatant) should be prohibited. I consider that the expense incurred by these unnecessary movements of medical officers would serve in a great measure to cover any additional expense caused in making an efficient and contented department.

Your obedient servant,

India, May 1st, 1875. HOPE.

MEDICAL CHARGES IN THE SUPERIOR COURTS.

DURING the recent sittings at Nisi Prius, before Mr. Justice Quain and a common jury, the case of Browne *v.* Breslin was heard. This was an action brought by Mr. Lennox Browne, of Weymouth-street, to recover from the defendant, who was formerly a cornet in the 17th Lancers, a sum of £50, being the balance of an account alleged to be due for medical attendance. It appeared that the plaintiff had attended the defendant during the months of April, May, June, and July of last year for an affection of the throat. The plaintiff's claim was at the rate of one guinea for each visit. The defence was that this claim was excessive, and a sum of £9 10*s.* was paid into Court, which, it was stated, was sufficient to satisfy the plaintiff's claim. The jury returned a verdict for the plaintiff for £16 10*s.* above the amount paid into Court, being at the rate of half a guinea for each visit.

Mr. G. W. Young.—If duly engaged beforehand, and on the ground of contract, he may.

A DENTIST'S LAWSUIT.

To the Editor of THE LANCET.

SIR,—I beg to request space in your next issue to correct certain inaccuracies in an annotation which appeared in your journal of May 1st, and which, no doubt inadvertently, misrepresent some points in my recent lawsuit personally very important.

I am not an "American," but an English dentist, residing in my native county, and have practised dentistry for nine years in this town. I have had, as patients, nineteen resident medical men or their families, or both, and surely they must, from observation and personal experience, be able to form an opinion on dental operations and operators. I am practising on the strength of the right of any Englishman to practise dentistry, not "on the strength of an American diploma." When challenged by the opposing counsel to prove my status, in addition to other evidence, I produced an American diploma, for no purpose of invidious comparison, but to prove my own personal qualification, such being further confirmed by testimony from the best of my *confrères* in London. The defendant was a wealthy timber merchant, duly informed of my fee before he gave the lady superintendent of the school in Scarborough permission to send his daughter to me. A subsequent engagement with the same patient had been arranged for, and not kept, and for this no charge was made, although I had been inconvenienced and disadvantaged thereby. A difficult and tedious operation was necessary, the result of previous neglect, and this occupied four hours and a half (not "three hours and a half"), time that I had no interest in spending further than an honest desire to do my duty faithfully. I demur to any insinuation that the fees were excessive, as I proved at the trial that they were less than London charges by equally competent practitioners, and the case was taken into Court not for mere litigation, but to vindicate my honour and local position. I submit that it is neither "curious" nor rare to see a successful claim made by any dentist where the law unfortunately places all on the same footing.

I will not occupy your space by adverting to uninstructed remarks by my counsel further than to say I have the highest respect for really qualified dentists, whether educated in England or America.

I am, Sir, respectfully yours,

West-Park-terrace, Scarborough. C. J. PEACOCK.

P.S.—My absence from home prevented my attention being called to the annotation in time for a reply in the following impression of THE LANCET.

Dorset.—Our correspondent's choice must to a great extent be influenced by his tastes and other circumstances. If he prefers the settled domestic life of private practice, then the partnership is obviously the best; but if tropical service would suit his health and inclinations, we think that the India Medical Service has superior future advantages in point of pay and position to the partnership he has named.

A CASE IN COUNTRY PRACTICE.

To the Editor of THE LANCET.

SIR,—The following case of difficult diagnosis may be interesting to some of your readers at the present time.

A few months ago, whilst taking charge of a country practice during the absence of the principal, I was called out one Sunday night to see an old woman (a publican), who was believed to be either drunk or very unwell from some cause or other. On my arrival I found the patient apparently asleep, breathing lightly, and with no difficulty or stertor; pulse rather small, but firm and regular, beating 80 in the minute. The history was that during the day she had been perfectly well in every way; that, as usual, everyone had gone to church at 6.30, excepting herself and, on this occasion, a granddaughter, who had come over. On their return she was found in her chair asleep; the granddaughter had gone early, and they had let themselves in, the door having been left open, as is frequently the case in small villages. On waking her, she complained of being rather chilly, and that as she had had supper she would go to bed. However, in walking she "rolled about," also said she felt "silly," spoke rather thickly, and, as she told her friends she had taken a "drop of beer," they thought it had been a "drop too much." She was got into bed, and nothing more thought about it until the others were about retiring, when, on waking her, and finding she was still rather stupid, they sent for me to see if anything was the matter. I had no difficulty in rousing her; and, although rather confused at first, in a minute or two she told me in a very fair voice that she felt giddy and sick, but had no pain or numbness anywhere, and should be all right in the morning. On asking if she had had anything to drink, she said she had taken more than her usual quantity of beer. Pupils equal. Whilst I was in the room she vomited some fluid matter, smelling of beer. When left alone for a short time she became drowsy again, but was as easily roused as before. I gave her some purgative medicine and a cold lotion to the head, placed the head high, and left a nurse sitting up in the room, with directions to watch her carefully, and send again for me should any unfavourable symptom arise. Through some mischance they neglected to do so until early the next morning, when I found her comatose, with stertorous breathing, and all the symptoms of apoplexy. She was ultimately left hemiplegic.

Yours truly,

Stratford, June 1st, 1875. C. S.

PILOCARPINE, THE ALKALOID OF JABORANDI.

FROM the *Pharmaceutical Journal* of the 5th instant we learn that Mr. A. W. Gerrard, teacher of Pharmacy at University College Hospital, has succeeded in obtaining the alkaloid of jaborandi, which he calls *pilocarpine*, in crystalline forms as the nitrate and as the hydrochlorate. Half a grain of the crystals was found to produce the full physiological effects of the drug.

"SANITARY CONDITION OF OUR PUBLIC SCHOOLS."

To the Editor of THE LANCET.

SIR,—In your report this week of THE LANCET Sanitary Commission on the Sanitary Condition of our Public Schools, in referring to *the means adopted to prevent the introduction of infectious diseases*, you lay stress on the difficulty of obtaining accurate accounts of illness during each vacation or absence from school. You also say, "If a record were kept of the condition of a boy's health at school, it would be valuable for future reference." You refer also to *the means employed to prevent the spread of epidemics, and to secure the isolation of cases.*

Having been for some time interested in this subject, will you allow me to give my experience? You were once pleased to notice a plan I proposed to adopt in the case of a large school—viz., to provide each pupil with a printed form I drew up, and called the "Register of Health," such form to contain an entry of previous illnesses, and in which a notice of any subsequent disease should be inserted at school or at home by the medical man in attendance. Notwithstanding the difficulties in carrying out the idea, I have found it of great service; for although a sanatorium is provided for the isolation of cases, it is necessarily limited, and it is therefore, in my opinion, very necessary, on the breaking out of any epidemic, to be able *at once not only to remove a case*, but to be in a position *to place all susceptible cases away from the contaminated quarter.*

I think I can undertake to say that in no public school can this information be at once afforded and acted upon without correspondence with the parents, and the consequent confusion and panic, as well as the risk of delay.

I have found it desirable to make the "Register of Health" as simple and inexpensive as possible, and beg to enclose for your notice a form constructed of untearable fabric, which Messrs. Letts and Co., of London, have published, a specimen of which they are empowered to present to any medical man who may apply for the same.

I am, Sir, yours truly,

Lewisham Hill, June 5th, 1875. FREDERICK H. SMITH, M.D.

B. G. H. would be entitled to practise—at least in surgery—in Canada without undergoing any examination. But if there is a Registration Act, as we believe there is, he would require to register in Canada; and to do so without examination, he would have to register in England, and produce proof of his having done so. This is required by an Act of 1868, entitled, An Act to amend the Law relating to Medical Practitioners in the Colonies.

DR. HARDWICKE.

To the Editor of THE LANCET.

SIR,—On the afternoon of May 25th I was summoned into the waiting-room of St. Mary's Hospital to see a man who had just been admitted, marked with mud on his face and shoulder. I found him dead in the chair. He was a cabman, fifty-four years of age, and was said to have fallen off his box a short time previous to his being brought in. In due course I received a subpœna, but Dr. Hardwicke would not allow a post-mortem examination. At the inquest on May 28th, the widow stated that a medical man (who, doubtless, for reasons of economy was not summoned) had been attending her deceased husband, and had said that he had a fatty heart. She also said he had occasional numbness of hands and feet. On being asked the cause of death, I said that I could not tell, having had no previous knowledge of the deceased; but, on being pressed, I admitted that the man might have died of heart disease. One intelligent juror was of the opinion of our learned coroner, that it was not worth while putting the county to the expense of a guinea for a post-mortem examination to ascertain the exact cause of death. Others were not so easily satisfied. However, a verdict of "Death from natural causes" was brought in.

It is a great pity Dr. Hardwicke should do his work in such a slip-shod manner, however much he may be in dread of having his expenses complained of by Captain Morley and others when his accounts are sent in.

I am, Sir, yours faithfully,

W. V. LINDSAY,

June 2nd, 1875. Senior House-Surgeon, St. Mary's Hospital.

MEDICAL ADVERTISING IN THE PROVINCES.

To the Editor of THE LANCET.

SIR,—My attention was only last Saturday called to a paragraph in THE LANCET, headed "Medical Advertising in the Provinces," in which, though you justly condemn professional advertising as a system, you most unjustly condemn me. I forward you a copy of the *Marlborough Times*, which will, I hope, satisfy you that I had nothing whatever to do with the article of which you complain, nor did I know anything of it until it appeared in print. I have always looked upon THE LANCET as upholding the dignity of the profession, and at the same time as being a lover of truth and justice, and I cannot but express my surprise that you should have been led into the error of condemning me upon the article of a country newspaper, evidently maliciously sent to you for that purpose, without first inquiring whether I was responsible for it. I entirely repudiate the charge that I was in any way concerned in the publication of the article in question, and I trust that, in common justice, you will publish this letter, and in doing so exonerate me from such contemptible practices.

I remain, Sir, yours faithfully,

Marlborough, June 7th, 1875. J. BLAKE MAURICE.

*** We have much pleasure in publishing Dr. J. B. Maurice's disclaimer. The *Marlborough Times*, in referring to the matter, says the notice on which our remarks were founded was inserted without the knowledge or cognisance of Dr. Maurice. Of course this explanation and Dr. Maurice's own letter completely exonerates him in the eyes of the profession.—ED. L.

An Inquirer on the Question of Removal of Bodies.—2 & 3 Will. IV., c. 75, s. 13.: Provided always and be it enacted that every such body so removed for anatomical examination as aforesaid for the purpose of examination, shall before such removal be placed in a decent coffin or shell, and be removed therein, &c.—S. 16: That any person offending against this Act shall be deemed guilty of misdemeanour, and be liable to a term not exceeding three months or a fine of £30.—S. 17: Any action or suit must be brought within six months after the cause of action accrued.

MILITIA SURGEONS.

THE following is a list of questions submitted to Mr. Hardy by a member of Parliament, and appended to each is the reply which he received:—

1. The examination of recruits for some militia regiments having been transferred to the army surgeons of the brigade depôts, is the War Office prepared to receive applications for compensation from the surgeons of the militia regiments affected by the order?

Answer. It has been laid down, and moreover stated by Mr. Hardy in the House of Commons, that each claim for compensation would be considered on its own merits.

2. Why does the War Office refuse to fill up the 9 vacancies for full surgeons and 29 vacancies for assistant-surgeons now existing in the militia service?

Answer. This has not been done pending the issue of New Militia Medical Regulations.

3. Is the Secretary of State desirous of retaining the services of the militia surgeons, and, if so, upon what terms, because it is absurd to suppose that if their recruiting emoluments are taken from them they would retain their appointments for one month's training pay?

Answer. This is dealt with in the New Regulations. Mr. Hardy desires to say that when he told you in July, 1874, that these Regulations would shortly be issued, he fully hoped such would have been the case; but he finds they have been so repeatedly altered and patched that it was necessary to reconsider and rearrange them entirely. They are now in print for latest and final consideration, and he hopes will be shortly issued.

Under the circumstances, we think the militia surgeons should await the issue of these New Regulations; and should they be in any way antagonistic to their interests, that they should take united action, bringing to bear not only Parliamentary influence, but that of their colonels on their behalf. Since the deputation waited upon Mr. Hardy last year, it has been impossible to take any steps in the matter, as the only answer given has been, "that pending a careful consideration of the whole question no information can be given." This information will be shortly imparted, as it will be seen that the New Regulations are now actually in print. It is very plain that the colonels commanding are materially interested in this matter, as it is necessary they should have someone whom they can make responsible for the quality of the men passed into their regiments.

THE NUTRITION OF THE PROTOZOON.

To the Editor of THE LANCET.

SIR,—Although the questions I am about to discuss are, to a certain extent unconnected with the study of medicine, their bearing on the theory of "biogenesis *versus* abiogenesis" (which is at the present time engrossing the attention of the profession) will, I feel confident, be accepted by you as a valid reason for seeking their publication in THE LANCET.

Having for fifteen years stood alone in maintaining that the law of nutrition which prevails in the case of the higher orders of the animal kingdom, and constitutes the fundamental distinction between it and the vegetable kingdom, fails in the case of the simplest and humblest creatures, whose body substance presents no trace whatever of special digestive apparatus, it is with no slight satisfaction that I am now able to state that my views on this subject have very recently been confirmed by evidence which seems to be incontrovertible.

The fact is in itself so important and so intimately connected with the biology of deep-sea organisms that it would be useless to attempt to indicate, within the compass of a few lines, the nature of the evidence and reasoning which influenced my conclusions. I must, therefore, content myself for the present with observing that in my "North Atlantic Sea-bed," published in 1862, pp. 130—132, as well as in various papers on the Rhizopoda and Protozoa generally, contributed since that period to other scientific periodicals, I stated the reasons which appeared to me to be sufficient to establish the belief that the lower rhizopods provide for their nutrition and growth by eliminating from the medium in which they live the *inorganic* elements that enter into the composition of their protoplasm.

What I contend for is, *not* that there exists in nature a hard and fast line between the extremes of its two great kingdoms, but a gradual transition and overlapping from both sides; and hence that the doctrine I have advanced is not the scientific heresy which its opponents, under the influence of foregone and, as I think, erroneous conclusions, have thought fit to consider it.

I am, Sir, your obedient servant,

June, 1875. G. C. WALLICH, M.D., F.L.S., &c.

Phthisis.—We are not aware of any Act under which our correspondent could be punished.

Mr. Gillman is thanked for his offer.

OBSTETRIC CUSTOMS.

To the Editor of THE LANCET.

SIR,—I quite agree with "X. Y. Z." in his opinion that the custom of "tipping the nurse" with the odd shilling is both inconvenient and derogatory; but he is mistaken in fancying this custom is confined to the metropolis. It is, I am sorry to say, common in Norfolk, Kent, and other counties. Even where the woman is nursed by her own mother or sister, as frequently happens among the "guinea cases," the "odd shilling" is still expected. Medical men are badly enough paid as it is without their "odd shilling" going, as is too frequently the case, towards the expenses of "Sairy Gamp's gin-bottle."

Yours respectfully,

London, June 7th, 1875. OBSTETRICUS.

Medicus.—The degree is utterly worthless. The holder of it has no more right to grant a certificate of death than an ordinary person. Anyone endeavouring to practise on the strength of that degree alone infringes the terms of the Medical Act.

THE LATE DEPUTATION TO THE WAR OFFICE.

To the Editor of THE LANCET.

SIR,—I very much question the expediency of baiting and bothering Mr. Gathorne Hardy with any more deputations like that which waited on him from the Dublin College of Surgeons this week. He has more than once publicly declared that the subject was engaging his attention, and he has expressed his willingness to redress the grievances of the medical officers; and Dr. Lush has already given notice of his intention to move a resolution thereon in the House of Commons very shortly. Mr. Hardy has received, according to his own showing, piles of pamphlets and communications. It is a confessedly hard task that he has undertaken, requiring much care, deliberation, and judgment, and any more statements and propositions by irresponsible people can only embarrass and probably disgust him. Of course this will sound very stupid advice to those who believe in the power of importunity; but it seems to me that Mr. Gathorne Hardy can employ his time a great deal better at this stage by attending to the suggestions of Sir William Muir, the responsible head of the medical service, than by framing answers to deputations, which are clearly intended to convey as little information as possible. Yours obediently,

June 5th, 1875. A WEARY ONE.

ERRATA.—In the report of the Clinical Society in our last number, page 792, col. 2, line 11 from bottom, for "this," read *skin*. — In the annotation on "Pharmacy in Ireland" in the same number, page 802, the date of the Apothecaries Act was erroneously printed "1871" instead of 1791.

COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from — Dr. Johnson, London; Mr. Bryant, London; Mr. Henry Smith, London; Dr. Liveing; Dr. L. Sedgwick, London; Mr. W. Rivington; Sir C. Treveylan, London; Mr. Fleming, Glasgow; Mr. Russell, Plumstead; Dr. Hill, Birmingham; Dr. Steele, Rome; Dr. Wadham, London; Mr. Bigg, Salisbury; Mr. Smee, London; Mr. Sargeant, London; Dr. Rayne, Oxford; Mr. Robinson, Dublin; Mr. Humphreys, London; Dr. Gorham, Tunbridge; Dr. Kinahan; Mr. Couldrey, Littleborough; Dr. Westmacott, London; Dr. Mapother, Dublin; Mr. Child, London; Mr. White, London; Mr. Gillman, London; Mr. Brough, Colchester; Mr. Birt, London; Dr. Bell Taylor, Nottingham; Mr. Quick, Penzance; Mr. Huntley, Jarrow; Captain Pim; Mr. Tomes; Dr. F. Robinson, London; Mr. M'Lawrin, London; Dr. Coupland, London; Mr. Manby, East Rudham; Dr. O'Connor, Welshpool; Dr. Rogers, Rainhill; Mr. Wills, Portsea; Dr. Bruce, Southampton; Dr. Mason, Sheffield; Dr. Tate, Woodbridge; Mr. Framley, Stratford-on-Avon; Mr. Fairles, Montgomery; Mr. Cooper, Cromer; Dr. Easby, Darlington; Dr. Stone, London; Dr. Cobbold, London; Dr. Watson, Tottenham; Mr. Stead, London; Mr. Jessett, Erith; Mr. Milligan, Wirksworth; Mr. Ley, Prestwich; Mr. Woodcock, Manchester; Mr. Smith, Northampton; Dr. Bramwell, Newcastle-on-Tyne; Mr. Merriman, Marlborough; Mr. Whitford, London; Mr. Lindsay, London; Mr. Wright, Liverpool; Mr. Packer, London; Mr. Bever, Brighton; Dr. Patchett, Great Harwood; Dr. Palfrey, London; Messrs. Fannin and Co., Dublin; Mr. Tufnell, London; Dr. Farr, New Jersey; Mr. Nairne, Crosshill; Mr. Ladell, Spring-grove; Mr. Morgan, London; Mrs. Agassiz, Exmouth; Mr. Willie, Cloughton; Miss Hunter, Cheadle; Dr. M'Dowell, Cottingwood; Dr. Bell, Preston; Mr. Clemenshaw, London; Mr. Macdonald, Manchester; Mr. Cotton, Edinburgh; Dr. David Johnston; Dr. Thornley, Bristol; Dr. Dukes, Rugby; Dr. Dolan, Halifax; A Reader; Dorset; A Sufferer; Tertius Lydgate; Medicus; Obstetricus; Subscriber; F.R.C.S.; Beta; A Provincial Surgeon; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Armistead, London; Mr. Gillanders, Fortrose; Mr. Swinson, Leamington; Dr. Harris, Leighton Buzzard; Dr. Smith, Burton; Mr. Gould, London; Mr. Crowe, Enfield; Messrs. Porteous and Co., Glasgow; Mr. Freeman, London; Dr. Stephenson, Fawley; Mr. Robinson, Shrewsbury; Mr. Townsend, Bristol; Mr. Radford, Otley; Mr. Williams, Bristol; Dr. Ritchie, Otley; Mr. Hill, Burton-on-Trent; Dr. Bayes, London; Mr. Etheridge, Teignmouth; Miss Wright, Alton; Dr. Power, Madras; Mr. Cooper, Liverpool; Dr. Etheridge, Bromyard; Mr. Roberts, Attercliffe; Mr. Smith, Glasgow; Mr. Clark, Calmstock; Dr. Pyle, Sunderland; Mr. Reilly, New Cross; Mr. H. Williams, London; Mr. Thomas, Brockley; Mr. Day, Haylake; Mr. Deck, Cambridge; Mr. Brown, Brighton; Mr. Sweetman, Wincanton; Mr. Prestwich, Oldham; Mr. Snow, Truro; Mr. Brady, Derby; Mr. Brend, Nelson-in Marsden; Mr. Allen, Brixton; Mr. Ward, Oxford; Dr. Luce, Stratford-on-Avon; Mr. Alderson, Hammersmith; Mr. Speirs, Haltwhistle; Mr. Woolhouse, Sheffield; Mr. Rush, Leeds; Dr. Coleman, Armley; Mr. Craig, Wharfedale; Dr. Masterman, Devizes; Mr. Townley, Glasgow; Mr. M'Donald, Teignmouth; Messrs. Peppercorn and Wilcox, Lincoln; Mr. Heathcote, Shrewsbury; Mr. Parry, Attercliffe; Mr. Croker, Dublin; Mr. Sykes, Ulverstone; Mr. Osmond, Colchester; Dr. Richmond, Northallerton; Mr. Hilles, Gargrave; Dr. Sharpe; Mr. Heywood, Torrington; Mr. Lambert, Mold Green; Aipha, Kent-road; L. M., Oxford; Medicus, Swansea; Beta, Peterborough; Torres Vedras; J. R., Finsbury; C. F. G., Paddington.

Western Morning News, Manchester Guardian, Liverpool Daily Post, Newcastle Daily Chronicle, Metropolitan, Surrey Advertiser, Huddersfield Chronicle, Cork Constitution, Isle of Man Times, East London Observer, and *Sunderland Times* have been received.

METEOROLOGICAL READINGS

(Taken by Steward's Instruments).

THE LANCET OFFICE, JUNE 10TH, 1875.

Date	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia in Vacuo	Max. Temp. Shade	Min. Temp.	Rainfall.	Remarks at 9 A.M.
June 4	29·90	W.	57	60	114	84	57	...	Cloudy
„ 5	30·02	W.	55	62	109	73	56	...	Clear
„ 6	29·90	S.W.	57	60	105	76	55	...	Cloudy
„ 7	30·15	W.	55	61	98	71	56	...	Cloudy
„ 8	30·17	W.	57	62	114	79	57	...	Cloudy
„ 9	29·88	S.E.	57	64	114	80	55	...	Clear
„ 10	29·73	S.W.	54	60	106	78	...	...	Cloudy

Medical Diary for the ensuing Week.

Monday, June 14.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ST. PETER'S HOSPITAL.—3 P.M. Expected Operations: Lithotrity and External Urethrotomy.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Wm. Turner, "On the Comparative Anatomy of the Placenta."

Tuesday, June 15.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Wm. Turner, "On the Comparative Anatomy of the Placenta."

Wednesday, June 16.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Wm. Turner, "On the Comparative Anatomy of the Placenta."

Thursday, June 17.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 3 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, June 18.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
MEDICAL MICROSCOPICAL SOCIETY.—8 P.M.—Meeting for the Exhibition of Pathological and Normal Histological Specimens.

Saturday, June 19.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

TERMS OF SUBSCRIPTION TO THE LANCET.

POST FREE TO ANY PART OF THE UNITED KINGDOM.

One Year ..... £1 12 6 | Six Months £0 16 3

TO THE COLONIES AND INDIA.

One Year £1 14 8

Post Office Orders in payment should be addressed to JOHN CROFT, THE LANCET Office, 423, Strand, London, and made payable to him at the Post Office, Charing-cross.

TERMS FOR ADVERTISING IN THE LANCET.

For 7 lines and under ..... £0 4 6 | For half a page £2 12 0
For every additional line ... 0 0 6 | For a page 5 0 0

The average number of words in each line is eleven.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday; those from the country must be accompanied by a remittance.

N.B.—All letters relating to Subscriptions or Advertisements should be addressed to the Publisher.

Agent for the Advertising Department in France—

Mons. DE LOMINIE, 208, Rue Grenelle St. Germain, Paris.